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ORIGINAL LECTURES.

FREQUENT MISCARRIAGE; ITS PATHOLOGY AND TREATMENT.

A Clinical Lecture delivered at the Long Island College Hospital,

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(Reported by Edward Develin, M.D.)

GENTLEMEN: To-day I intend to call your attention to the subject of frequent miscarriage; its pathology and treatment, illustrating my remarks upon this most important branch with such cases as have presented themselves here to-day for treatment.

Case I.—The patient now before you is thirty-five years of age, and has been married nineteen years. She has had no children, but has had ten miscarriages, the last one occurring a year and a half ago. Menstruation is now irregular. Our duty is to ascertain the cause of these frequent miscarriages; and in this case I have every reason to believe that it is due to the general condition of the patient. I find nothing abnormal about the vaginal portion of the uterus or the vagina itself; neither does the body of the uterus appear to be diseased or deformed.

Whenever we see this disposition to miscarry, not due to malpractice by the patient or an abortionist, I mean when they arise from natural causes, we are always sure of one thing, and that is: that there is some disease of the uterus or some specific constitutional disease. In such cases I am always suspicious of syphilis. Frequent miscarrying points strongly to constitutional disease, and that is the reason why I have just asked the patient a few questions in order that I may ascertain if she has had any evidences of syphilis. I rather think she has; I had an opportunity of seeing her before I presented her to you, and her skin looks somewhat like that of one who might be syphilitic; at all events, it lies between this constitutional condition and disease of the uterus, and as the uterus is all right we may exclude that cause.

We read about the habit of miscarrying, and in this case we have had ten miscarriages, which suggests that it has become a habit; but I hardly believe the habit is so easily established as the literature upon this subject would lead us to believe. I think in the cases which habitually occur there is some disease of the uterus, such as laceration of the cervix, bilateral and high up. In these cases pregnancy seldom occurs, and when it does a miscarriage is the result usually.

Now from the history of this case we learn that she has no marked disease of the uterus. Having menstruated irregularly, she may have some corporeal endometritis; it cannot be marked, however, or she would not have become pregnant. I am, therefore, the more inclined to think that the difficulty is syphilitic. If this be our suspicion, and the evidence given by the patient is not sufficient for a diagnosis, our inquiries are then directed to the husband, and the chances are that you would be likely to find the cause in him.

Now these cases respond very well to the anti-syphilitic treatment, and in time a living child may be borne. It is a curious fact that this disease is self-limited to a great extent, at least, in transmission; and hence in time these miscarriages are stopped and a family is raised. In relation to this matter, one of the most important observations was made by Dr. Reade, and set forth in a paper which he read before the Kings County Medical Society. It was an elaborate paper showing that the longer the time that elapsed from the contraction of the disease until the fecundation of the ovum, the less chance was there of the transmission of this syphilitic taint. In those who have the misfortune to conceive soon after an attack of syphilis, the ovum dies in utero; at the next conception the ovum may perhaps be carried a little longer, and so on until finally a child is born showing little of the syphilitic affection. Dr. Reade also stated that the greater the lapse of time after the birth of the child, until the external manifestations of the disease, the more readily did it respond to treatment. These are important points to bear in mind.

In this case I shall take it for granted that there is some specific difficulty, and shall therefore direct her to be placed upon alterative treatment.

Now let me suppose a case: A lady has had a number of miscarriages and has been treated by her family physician, and he has failed to carry her along to the end of gestation. After a time she begins to lose faith in his treatment, and calls in some eminent physician, and he fails also; finally a third medical man is called in, and he understanding the case, as in like manner did the previous gentlemen, continues the anti-syphilitic treatment and she finally has a living child. Now this gives the last doctor a reputation at once, and yet he did not make it altogether by his skill as a physician, but simply because the transmission of the specific taint was nearing its close; and hence she was becoming more competent to carry the child the full time. Such a case came under my observation about ten years ago, and I attended the lady during her confinement, and at once placed the child upon specific treatment. I believe the child is living to this present day. The result of this was that I have since had several such cases, but sometimes I fail, just as these other gentlemen did, in recent cases. You can thus see how important it is to bear in mind these points, and by this means hold out hopes to your patient of her ultimately raising a family.

Case II.—This patient is thirty-five years of age; has been married ten years; has had three children and three miscarriages; one miscarriage occurring at three months, one at four months, and one about seven months. I supposed that these miscarriages resulted from laceration of the cervix uteri, as they are very prone to occur from that cause, but I am now informed that since her miscarriages she has borne a living child, therefore the miscarriages must be due to some other cause.

Upon examination I find the uterus to be, as near as I can judge, about three and a quarter inches in length, from the junction of the vagina and cervix. I show you here a double laceration of the cervix, extending up to the vaginal insertion to which we just now referred. The uterus is retroverted, and this displacement, taken together with the laceration of the cervix, is sufficient to account for her miscarriages. I have already spoken of the relation of lacerations of the cervix uteri to miscarriages, and I need only say that retroversion, when well marked, is equally capable of arresting gestation. Fortunately, we can remove this cause of abortion by restoring the uterus to its normal position, and retaining it there by a pessary until the uterus is sufficiently enlarged to rise out of the true pelvis.

A pessary was introduced some time ago for the purpose of sustaining the uterus in position. I drew your attention to the position of this pessary previous to its removal, namely, that it was projecting from the introitus. This pessary was introduced in a New York hospital, and is the retroversion pessary of Dr. Thomas, one that I was in the habit of using quite frequently, but I object to the shape of this one; the posterior bar is made too large, and the whole instrument has too much of a wedge-shape. In this pessary the wedge comes almost to a sharp point. While I believe in the wedge-shape pessary introduced by Dr. Albert Smith, of Philadelphia, this one is too sharply tapering. This broad bar which you see here, and upon which the pressure is brought to bear, has pushed the instrument down to the introitus. Now I know that this pessary has been out of position for weeks, although I have never seen the patient until this hour, for I find upon the lower portion of the pessary an incrustation of the salts of urine, showing that the patient has been urinating upon it. This could not occur if the pessary was in proper position unless she had laceration of the urethra. So, then, this instrument, while it has done much good, is not wide enough to sustain the uterus and retain the position in which it was placed in the vagina. That is one of the reasons why I shall give it up. Now do not understand me to condemn this shape of pessary by any means, for it certainly has its advantages. The idea in its design by Dr. Thomas was good, but it has been spoiled in making. Though an instrument may be sent to the instrument maker with full instructions as to its mechanism, the exact shape, and its uses, he will oftentimes fail to follow your directions explicitly. This is, then, no fault of the gentleman who has devised the instrument, although in many cases it leads to an unfair criticism of the instrument by those who have been unfortunate enough to purchase one of these badly made articles. This one has too much of a wedge-shape and is too long, and hence is constantly slipping down. The reason the posterior bar is made large is to prevent its being imbedded in the vaginal walls. This instrument was designed for the purpose of keeping the uterus in position after it has been replaced there, and it will do this if the instrument be not too narrow. There are, however, as I have previously mentioned, two methods of restoring the uterus to its normal position—we may restore the uterus partially and gradually secure an improved position of the organ, until finally it resumes its normal relations with surrounding parts; or we may restore the uterus at once and keep it in place. The advantage of this retroversion pessary, when properly made, is that you can make more pressure, and compel the organ to stay in position, better than any other instrument that I have used. I however prefer the gradual method rather than the rapid method. There is here another point I would call your attention to—this pessary has done this woman good service although it is somewhat too long. She states that it has afforded her great relief, and asks that she be permitted to wear it again. So when a patient feels so much comfort from the use of any instrument, you may know that it is effecting its object; by this you can be guided in your future treatment of the case. We can improve upon this instrument by using a wider one, which will accomplish the object and at the same time not annoy the patient by projecting from the vulva.

Case III.—This patient is thirty-seven years of age, and has been married nine years; she has two children living, and has had three miscarriages, the last one occurring ten days ago. She has had amenorrhœa for the past three or four months, and, of course, had metrorrhagia when she miscarried; the flow, she informs me, stopped yesterday.

The case is interesting because of the uterine hemorrhage which is so liable to continue after miscarriage, especially when the emptying of the uterus has not been complete. I think the rule is that in a miscarriage, if the ovum be cast off complete, that will be the end of it, if you treat your patient with rest and care. But if the ovum becomes broken, and part of it remains, no matter how small it may be, there is likely to be a little oozing for a long time; perhaps it has been so in this case, and had this hemorrhage continued, we would have emptied the uterus, and endeavored to relieve her. On examination, I find the uterus is larger than normal, and it is soft—it is not well contracted.

In this case we will advise rest, a little ergot, and the application of the warm-water douche—this will induce the uterus to return to its normal dimensions.

Case IV.—Here is, I believe, a most singular case, although I have not had time fully to look it over. The patient is married, and is aged twenty-five years. She informs me that for the past three months her menses have been very irregular, and at times hemorrhage occurs. She gives no very clear history, but there is a peculiarity about this hemorrhage which I especially desire you to notice; it is this, that when she lies down she suffers more from the hemorrhage, but when she assumes the erect position the hemorrhage ceases. This is somewhat peculiar, and is almost pathognomonic of one condition. I will, however, examine the uterus before I commit myself to a diagnosis. On examination, I find the uterus to be about five inches in length, as near as I can measure; I find it is perfectly uniform in size; it is pear-shaped, and differs only from the normal non-pregnant uterus in that it is enlarged. I also find it to be quite elastic to the touch; it does not present that dense structure so perceptible in fibroids; here it has a soft, doughy feeling. Her menstruation for the last three months has been so irregular that the probability is that she has not menstruated at all, but has been suffering from metrorrhagia and that peculiar hemorrhage when she lies down.

Now, without dwelling on a case of this kind, I will say that I believe it is due to a retarded or delayed miscarriage. I believe that she has been pregnant,

and that the ovum has died without being expelled; perhaps a part of the ovum may be attached and retain its vitality. Now, the contents of the uterus when the patient assumes the erect position act as a valve at the os internum, but when she lies down it falls away from the os and a hemorrhage takes place, the blood accumulating in the uterus while she is standing or walking about. I have seen a sufficient number of these cases to be almost positive in my diagnosis, and in addition I have the advantage in that Dr. Cushing has examined the patient and has come to the same conclusion. I know of no other condition in which that occurs, although there is a case reported by Dr. J. Marion Sims in which somewhat similar symptoms were found, resulting from a polypus or something of that nature. He, however, does not mention anything relating to the effect of the erect or the recumbent position upon the hemorrhage.

In one case that came under my care the ovum died at four months, and at the seventh month I removed it; the patient had hemorrhage precisely in the same manner as this one. At the time I emptied the uterus the temperature was 105°, and the pulse one hundred and three. As soon as the uterus was emptied the temperature came down at once, and the patient is alive and well to-day. Dr. C. H. Smith brought to my notice a case of this kind, in which the patient was often obliged to sit up in bed during the night to stop the bleeding. I desire you to bear in mind this peculiar point in the clinical history of these cases, it is a valuable and important lesson. We will see what the uterus contains, and report to you the result.

ORIGINAL ARTICLES.

A CONTRIBUTION TO THE HISTORY OF LIGATION OF THE COMMON FEMORAL ARTERY.[1]

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LAST summer it was my fortune to have to deal with a large aneurism of the femoral, extending upwards to within two or three inches of Poupart's ligament, and while pressure, with rest, was being tried to effect a cure, I very naturally turned to the recorded experience of others, with the intention of tying the common femoral artery, if pressure failed. So the first author my hand lighted upon said that, while he preferred to tie the external iliac rather than the common femoral for aneurism high in the thigh, yet he was not prepared to condemn a further trial of the common femoral. My next author was more favorable, for by him the common femoral was preferred to the external iliac. My third author condemned the operation unhesitatingly as not fit to be done, and from the state of depression in which I now was, nothing aroused me until I put my eye on author No. 4, who says that it is the duty of the surgeon to tie the common femoral in preference to the external iliac. I therefore, with care, returned my four advisers to their shelves, and tied, according to my original intention, the common femoral of my patient, who recovered with rapidity both from his aneurism and his doctor.

CASE.—J. W., aged fifty-eight years, male, mulatto, tall, rather spare, noticed in March, 1883, a lump in the left groin. When first discovered, the enlargement was about, so he described it, the size of a pullet's egg, probably an inch and a half by two and one-half inches. During the month of May, increase was rapid. June 17 of the same year, I first saw the patient. The enlargement at that time was oval, extending from within two and one-half inches of Poupart's ligament to within five inches of the upper border of the patella. The circumference of the affected thigh, the left, measured over the most prominent portion of the tumor, exceeded by five inches the circumference of the right taken at a corresponding place. There was decided œdema of the limb below the tumor; pulsation was distensile and marked; pressure upon the common femoral abolished pulsation, but did not bring about entire subsidence of the swelling; aneurismal bruit distinct; pain great; the most comfortable position being with the limb semiflexed and everted. The continuance of this position for a certain time had caused an incipient bedsore upon the outer side of the foot and little toe. There was no history of syphilis. Aneurism of superficial femoral was evident. Compression was commenced June 26, with two horseshoe tourniquets, having small pads so adjusted as to press upon the femoral between Poupart's ligaments and the aneurism; the tourniquets were, of course, tightened and relaxed alternately. Morphine was given q. s. At the end of ten days but little good had resulted from the use of tourniquets, although complete as well as partial stoppage of the blood-current had been brought about at different times. Veratrum viride was given also, and the pulse by its means kept down.

July 14 I tied the common femoral half an inch below Poupart's ligament with silk. Pulsation was easily felt through the skin, and this, together with subcutaneous connective tissue, being divided, the artery came into view. By pressing the vessel from one side to the other, I was able to feel that no large branch came from it within half an inch or an inch of the place to be tied. One very small vessel was given off just where exposed, so this was tied in addition to the main trunk. Pulsation in the aneurism at once ceased, and did not recur. One end of the ligature was left hanging from the wound; iodoform and absorbent cotton constituted the dressing. Convalescence was without interruption, and calls for no comment. The external border of the foot and little toe, which were denuded before the operation by pressure, became the site of a troublesome ulceration, and healed but slowly, the toe sloughing off. The aneurism consolidated, became very gradually smaller, and was, when last seen, represented by a firm lump, causing no inconvenience.

Fortified by a successful case, I was of course prepared to criticise the opinions of others, and I venture to say that there are few operations in regard to which so many divergent opinions are expressed by competent men. From unqualified condemnation

[1] Read before the American Surgical Association April 30, 1884.

to unqualified praise there is an easy gradation of advice and opinion not only from those who have neither performed nor seen the operation, which need cause no surprise, but singularly enough even from those who have themselves operated. The Irish surgeons approve of the operation, notably Porter, who gives three cases with recovery, and so well describes the anatomy of the locality, etc., as to justify the expression occasionally used—"Porter's operation."[1] English surgeons, with scarcely an exception, do not favor the operation. Macnamara favors the operation and reports cured cases[2] including one of his own. Erichsen is strong in opposition[3]. Holmes[4] approves the measure rather than to tie the external iliac, while Bryant[5] requires more experience before recommending it. Pemberton[6] is the most pronounced in favor of the measure of all surgeons who have written. American surgeons, with but one brilliant exception consider the operation injudicious and inexpedient. Mott[7] is the exception, and he says, "some surgeons have doubted the propriety of tying the artery between the giving off of the profunda and the origin of the epigastric. We have, however, several times put a ligature here, and in every instance with success." This is very strong endorsement.

A foot-note on the same page states that since the above was written, he—Mott—has again tied the common femoral with success. It is greatly to be regretted that the matter is left in so crude a condition; no particulars are given about age, sex, cause, manner of operating, etc. The only seeming excuse for such omissions in so careful a writer being, that there could be in Mott's mind no doubt as to the propriety of the procedure and discussion therefore was needless.

Continental surgeons are generally not in favor of the operation. The most exhaustive article with which I am acquainted is by Rabe,[8] with an analysis of one hundred and seventy-eight ligations of the common femoral for all causes. In this elaborate summary of our knowledge up to the time of its publication, 1875, a comparison is instituted between ligations of the large arteries of the lower extremity in regard to secondary hemorrhage and gangrene as affecting the general mortality, the outcome being not favorable for the common femoral ligation. Unfortunately, the Irish cases have escaped due credit, Porter[9] being omitted, as also Smyly. Laugier[10] is entirely omitted with two successful cases. An unsuccessful case by Gelston[11] is likewise omitted.

For aneurism, the vessel under discussion has been tied but a very few times, the enormous majority of ligations being for hemorrhage following traumatism, and Rabe, after collecting and analyzing 540 ligations of the superficial femoral, 178 of the common femoral, 207 of the external iliac, and 27 of the popliteal, for all causes, makes use of the following language: "It is necessary to add that neither of these ligations, in case of traumatic hemorrhage, performed at a distance, prevents more surely the one than the other the recurrence of hemorrhage," a sentence which conveys the highest compliment to the teachings and opinions of Guthrie, that most competent surgeon. Laugier's cases, already referred to, were both wounds of the artery, in which ligatures were applied above and below the seat of injury. Both patients recovered. Rabe disapproves of tying the common femoral, advising that either the superficial femoral or the external iliac should be secured. Turretta,[1] in Italy, after the recovery of a traumatic case in which, having tied the common femoral above the wound, hemorrhage occurred, and he tied the external iliac, comes to the same conclusion as Rabe. If he had tied the vessel above and below the wound, his conclusion, as well as his practice, would have been better.

In the History of the War, Part 3, Surg. Vol., p. 789, will be found Table CXLI., being a summary of 374 ligations of the femoral artery. A certain number of these refer to the common femoral. I append a brief history of each case, for which I am indebted to the extreme courtesy and kindness of the officials of the Library of the Surgeon-General's Office, not only in affording me every possible facility to investigate, but also in making transcripts of documents beyond my reach.

For traumatic aneurism there is recorded one case, No. XIII., of the table referred to.

Injury to femoral in August, 1864; no primary hemorrhage; aneurismal sac formed; ligation of femoral above profunda, September 1, 1864; ligature separated ninth day; recovery.

For secondary hemorrhage after amputation there are four cases, with two recoveries.

CASE XVII.—Fracture of knee-joint, October 27, 1864; amputation, thigh, October 28; *gangrene* in stump three weeks after operation; secondary hemorrhage on third day; femoral ligated just above profunda; recovery.

CASE XXI.—Fracture of knee-joint, March 31, 1865; amputation, thigh, same day; hemorrhage from profunda, April 4; same day ligation of femoral above profunda; recovery.

CASE CCLXV.—Wound of thigh, August 29, 1862; amputation, same day; hemorrhages, September 5, 6, 7; ligation of femoral above profunda, September 7; hemorrhage recurred September 8; died September 12, 1862.

CASE CCCLXV.—Fracture of femur, May 5, 1864; amputation of thigh, June 2; hemorrhage, June 5, and femoral artery ligated above profunda on the same day; died, June 5, of exhaustion.

For hemorrhage secondary after a wound there are recorded thirteen instances, two of which recovered. This list includes two cases in which the vessel was ligated three-quarters of an inch below Poupart's ligament, and, therefore, presumptively above the profunda, although not stated in so many words.

1 Dub. Quart. Journ. Med. Sci., Nov. 1860.
2 Brit. Med. Journ., Oct. 1867.
3 Am. Ed., 1878, vol. ii. p. 160.
4 Packard's Ed., vol. ii. p. 440.
5 Surgery, 2d Am. Ed., p. 352.
6 Brit. Med. Journ., Oct. 30, 1875.
7 Mott's Velpeau, vol. ii. p. 301.
8 Deut. Zeits. f. Chir. V. Nos. 2 und 3 March, 1875.
9 Loc. cit.
10 Journ. de Méd. Chem. and Phar., Montpel., 1803, p. 135.
11 Med. Press and Circular, Sept. 2, 1868.

1 Il Morgagni, 1877, p. 166.

CASE XXIV.—Wound of thigh, May 16, 1864; secondary hemorrhage, and femoral ligated above profunda, May 29; recovered.

CASE LXXXIX.—Wound of thigh, April 2, 1865; hemorrhage from branch of femoral, April 11; ligation of femoral above profunda in Scarpa's space, April 12; recovery.

CASE CXL.—Wound of thigh, femoral injured, April 1, 1865; April 10, hemorrhage from femoral and descending branch of profunda; femoral ligated on the same day above profunda; *gangrene* of entire limb; died April 19, 1865.

CASE CLXXXIII.—Fracture of femur, May 28, 1864; hemorrhage from profunda, June 19; ligation on same day of femoral just below Poupart's ligament, and above probable origin of profunda; hemorrhage recurred June 20 and 21; wound plugged with persulphate of iron; died, June 25, of exhaustion, following secondary hemorrhage.

CASE CXC.—Wound of thigh, June 1, 1864; June 8, hemorrhage from deep branches of profunda; profunda ligated one inch below origin; bleeding continuing, the femoral was ligated two inches above the profunda; death, June 15.

CASE CCXI.—Wound of thigh, March 16, 1865; hemorrhage, April 3, from profunda; profunda ligated same day; April 5, femoral ligated just below Poupart's ligament; *gangrene;* death, April 8, 1865, of gangrene.

CASE CCXIII.—Wound of thigh, May 15, 1864; *gangrene* of wounded parts; hemorrhage, May 28, from profunda; femoral ligated same day, one-half inch above profunda; died of gangrene, June 2, 1864.

CASE CCXVII.—Wound of thigh, May 10, 1864; hemorrhage from profunda, May 19; ligation of profunda, same day; hemorrhage recurred May 22; femoral ligated above profunda, May 22; hemorrhage recurred thirty-six hours after—arrested by compression; died May 26, 1864.

CASE CCXIX.—Wound of thigh, June 9, 1864, ball lodging close to femoral; hemorrhage from femoral, July 5; ligation of femoral above profunda on same day; ligature came away July 11; hemorrhage recurred at four different times; died of chronic diarrhœa, September 25, 1864.

CASE CCLXIX.—Wound of thigh, May 18, 1863; great primary hemorrhage (probably ceased spontaneously); June 3, hemorrhage from profunda; ligation of femoral above profunda same day; hemorrhage recurred from branches of internal iliac; death, June 10, 1863, from exhaustion, following hemorrhage.

CASE CCCVII.—Wound of hip, May 12, 1864; hemorrhage, May 28 and 29, from branch of profunda or pudic artery; femoral ligated May 29, three-fourths of an inch below Poupart's ligament; hemorrhage recurred fifty-six hours after operation; death, June 2, from secondary hemorrhage.

CASE CCCXXXIV.—Wound of thigh, May 18, 1864; hemorrhage from circumflex, May 30; June 2, femoral ligated three-fourths of an inch below Poupart's ligament; hemorrhage recurred three hours after operation; died from exhaustion, June 5, 1864.

CASE CCCLIII.—Fracture of femur, May 10, 1864; hemorrhage from femoral, June 7; femoral ligated above profunda, June 9; died, June 17, 1864.

There are certain other cases of the table in which it is likely that the common femoral was tied, but in the absence of specific statement to that effect, and in the absence of knowledge concerning the exact site of the ligature, they must be omitted here.

Gangrene is recorded four times—Cases XXVII., CXL., CCXI., CCXIII.—but no distinction is made between the variety resulting from obstruction to the circulation and that resulting from hospital infection. As the seat of hemorrhage is but rarely stated, whether from the proximal or distal side of the wound, analysis of the cases is not possible. From the large mortality, however, it may be safely inferred that to tie the common femoral for a distal wound, rather than to tie both ends of the vessel in the wound, is to be avoided if possible, for it exposes the patient to needless risk.

As germane to the subject of bleeding from the lower end of a wounded artery, Gelston's[1] case may be cited: The vessel was tied in Porter's canal, July 2d, for aneurism; secondary hemorrhage July 17th, and ligation of external iliac; bleeding occurred from the distal end of the old wound July 19th; the wound was plugged; bleeding recurred several times; death August 1st. I cannot avoid thinking that for traumatic cause this vessel (common femoral), perhaps, has been tied in consequence of its extremely superficial position, and the facility with which the operation is done, as compared with the difficulty of finding a bleeding artery and putting a string on it in a sloughy or deep wound.

For causes not traumatic, elephantiasis, and aneurism, how about tying the common femoral? Rabe gives ten cases in which the vessel was secured for the former cause, elephantiasis, with one death and nine recoveries. The same author gives twelve cases of ligation for spontaneous aneurism, with six recoveries and a like number of deaths; but cases by Porter,[2] Smyly,[3] Lister,[4] Gelston,[5] and several cases by Mott, probably, are not to be found in his list. Looking at the unfavorable cases, it appears that death is generally brought about by hemorrhage, whether from the proximal or distal end of the artery, is, however, but exceptionally stated. I find an explanation for this secondary hemorrhage in the variable anatomy of the vessel, sometimes being extremely short, sometimes long, according as the profunda commences close to, or at a distance from, Poupart's ligament. The length usually ascribed to the common femoral is from one to two inches, probably more often one than two. A fair average would be one and a quarter inch; and, inasmuch as the separation of a ligature from a tied artery is generally attended with hemorrhage if a large branch be close at hand, the amount of working space afforded the surgeon does not appear excessive, and might be contracted; it must, however, be remembered that variation in origin is not the prerogative of the deep femoral only, but that the epigastric and circumflex ilii are given off by the external iliac at a variable distance from Poupart's ligament.

When, therefore, the common femoral is under consideration with a view to ligation, and the origin of the profunda discussed, due regard must be paid to the possible extent of external iliac without branches

[1] Loc. cit. [2] Loc. cit. [3] Loc. cit.
[4] Address before Brit. Med. Assoc. 1871. [5] Loc. cit.

above Poupart's ligament; and, should the commencement of the profunda be exposed, the operator will apply the ligature above or below, or tie both vessels according as his judgment may direct after careful examination. Published cases prove that these considerations are not theoretical. Pemberton tied, as he thought, the common femoral, and the patient recovered, death occurring a certain time afterwards from causes foreign to the operation. He was able to examine the parts, and found that he had really tied the superficial femoral, for the profunda arose as high as Poupart's ligament.

Collis, quoted by Macnamara, thought he tied the common femoral; death took place from secondary hemorrhage, and the profunda was found on inspection to be given off immediately above the ligature. The string had been put around the superficial femoral.

In the table already referred to (Medical and Surgical History of War), is a somewhat similar case, the particulars of which are as follows:

CASE CXLVIII.—Wound of thigh and injury to femoral, May 31, 1862; hemorrhage June 10th; femoral ligated on the same day, as was supposed, above the profunda; but the profunda being given off unusually high, was also tied; hemorrhage from profunda recurred June 17th, profunda religated same day; died from exhaustion two hours after operation.

Pemberton, in a second case, and Lister have successfully tied with antiseptic catgut; it is possible that this method of tying the artery, under consideration, may reduce the mortality. The common femoral being covered by but skin with connective tissue, can be readily exposed, can be examined by touch and sight, and the presence of a neighboring large branch recognized. Should the limb be œdematous as high as the groin, the application of a horse-shoe tourniquet with the pad over the artery for a short time will render the vessel again superficial. Recourse was had to this expedient in my own case. The fact that the crural sheath encloses a funnel-shaped space much larger than the contained vessels can fill, permits a free examination for the profunda. It will be probably wise, in view of the shape of the crural sheath, to open it freely for another reason, lest drainage occur backwards toward the pelvis rather than outwards. From the study of recorded cases I am led to the following conclusions:

1st. Ligation of common femoral in continuity for distal wound is attended with great mortality, and should not be substituted for the application of ligatures to an artery above and below the point wounded.

2d. Ligation of common femoral for elephantiasis or aneurism, is proper.

3d. The crural sheath should be freely opened and the vessel carefully examined for the origin of the profunda and epigastric, the ligature not to be tied within a half or three-quarters of an inch of either.

4th. Half or three-quarters of an inch below Poupart's ligament will probably be the most favorable locality for the ligature.

5th. The presence of a small branch near the seat of ligature does not contraindicate the operation; such branch should be also tied.

TRAUMATIC RUPTURE OF RETINA AND CHOROID BY A PLUSH BALL.[1]

BY CHARLES SHAFFNER, M.D.,

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ON September 11, 1883, V. H., a school-boy, ten years old, applied for treatment at the Philadelphia Eye and Ear Dispensary, stating that he had received a blow over the left eye in play from a plush ball at the hands of a playmate two days before. This brought on moderate pain for a half hour and caused him to cry, as the mother thinks, more from fright than from severe pain. She applied cold water to the eye, and this was all the treatment he had until he fell into my hands. He soon noticed that he had lost almost all his sight in his left eye, and his mother's anxiety on account of this was the direct cause of his seeking treatment.

At his first visit the right eye $= \frac{18}{xx}$; accommodation = J. I at 3″ to 25″; H. 1.5 D. Left eye $= \frac{4}{cc}$; accommodation = J. I at 2″ to 5″; M. 6 D. Right eye, ophthalmoscopic examination showed nothing abnormal except that the optic papilla was rather pale, and had a crescent to the outer side, amounting to one-sixth of its diameter.

Left eye showed a pale optic papilla, oval in shape; axis 90°, with a porus opticus equal to one-sixth of disk, and with a crescent equal to one-tenth of a diameter. Outwards from the disk were seen three vertical white lines (ruptures of the choroid) the first of which was about a half a diameter away from the disk, and extending about one-fourth an inch in a vertical direction, as everything is magnified by the lens of the eye; lower down was a small spot of choroiditis; outwards from this rupture was another, not more than one-third the size of the first, and about a fourth of a diameter further outwards, also vertical in its direction, and showing white sclerotic in its depth. About the region of the macula lutea was another and very striking rupture, much larger, whiter, and bifid above, showing a very white background.

A slight fresh clot was hanging to its inner edge and floating in the vitreous in front of the rupture. The retina was generally congested, and its vessels much enlarged. The conjunctivæ were not congested, cornea was normal. Pupil was considerably dilated and did not react to light (no atropia had yet been used). The lens was in place and uninvolved.

Treatment was rest in the house in a moderately dark room, an eye-shade and a solution of atropiæ sulph. gr. j to ʒj in left eye once daily.

About September 22d I examined him carefully again, and found right eye vision $= \frac{15}{xx}$; H. 1.5 D. Left eye vision $= \frac{15}{cc}$(?); H. 2.25 D, or return to hypermetropia. A change from myopia, showing swell-

[1] Read before the Philadelphia Ophthalmic and Aural Book Club Association, March 17, 1884.

ing of the disk. The largest rupture was seen to be half a diameter in width, and several diameters in length. The smaller ruptures were surrounded with hemorrhages. The spot of choroiditis did not appear. The edges of the disk were indistinct and cottony, showing that neuritis had set in. Choroid was congested and its circulation rather plainly seen. Retinal vessels were dilated. The pupil was still much dilated, although very little atropia had been used, the case having been left almost entirely to nature.

September 29th, right eye vision $= \frac{15}{XX}$. Left eye vision $= \frac{15}{XL}$. The largest rupture appeared with a black border, otherwise the same as before, while vision was much improved. No marked change of tension, but it might be a little diminished.

Left eye for near vision has come up to reading J. 6 at 3″ to 10″.

A CONTRIBUTION TO THE STUDY OF THE ETIOLOGY OF MALARIA,

BASED UPON OBSERVATIONS COVERING A PERIOD OF NINE MONTHS, AT FORT SILL, INDIAN TERRITORY.

BY RICHARD COLE NEWTON, M.D.,
ASSISTANT SURGEON, U. S. ARMY.

How much real advance has been made in establishing the true nature of the cause, or causes, of malarial diseases since the days when Watson lectured on this subject, the reader can judge by turning to the works of that eminent teacher. To the writer, after a careful survey of the field—so much of it, at least, as is accessible to him—it appears that no material addition has been made to the common stock of knowledge from Dr. Watson's time to the present. Furthermore, certain writers and lecturers have of late boldly denied the assumption of Lancisi (which the majority have always accepted) of the existence of a specific malarial poison; while others prefer to take the fashionable position of agnostics.[1]

Even "the enthusiastic Tommasi Crudeli"[2] is quoted in the *Sanitary Engineer*[3] as saying, "Unfortunately, malaria may be produced in the most diverse soils, and that which perfectly succeeds in abolishing it in one place, may have no effect in another. . . . As yet we are working blindly. Sometimes we obtain good results; sometimes it seems as if we made matters worse. We need careful study of the *natural history*[4] of malaria, of the effect upon it of change of character or condition of soils," etc. It would seem from this that this well-known observer must have lost faith in his own alleged discoveries, or that, at any rate, he finds the "bacillus malariæ" very unmanageable.

The only paper written in defence of the specific nature of the malarial poison that I have seen very recently is a short article by Dr. D. Parker, of Texas,[1] which takes well-chosen ground in favor of the usually accepted theory.[2]

Dr. Sternberg's recently expressed hope—that the true cause of malaria will soon be demonstrated,[3] can but be the hope of every educated man, and a source of encouragement to every physician whose practice obliges him to combat this stealthy enemy from one year's end to another—with the probability that he himself will fall a victim to it at last.

The object of this paper is not to divulge anything new or startling, but simply to call attention to some facts which the writer has carefully verified, and which he believes have an important bearing upon the question of the specific nature of the malarial miasm.

The writer became Post-Surgeon in this Post (Fort Sill, Ind. Ty.) in the latter part of February, 1883, and was relieved from this duty November 20, 1883. During this period (about nine months) he attended "sick call" himself (with less than two dozen exceptions), and took entire charge of the cases in the hospital. He, therefore, is certain that all the cases diagnosticated as malarious received anti-periodic treatment (generally preceded by a mercurial purge), and believes that the diagnoses were correctly made.

The surroundings of this Post do not seem at first sight unsalubrious; but an inspection of the soil shows that it contains much clay. Watson[4] and Hertz[5] have pointed out that malaria is apt to arise from clayey soils—presumably from their imperviousness. After each rain-fall here, the water remains above ground with remarkable persistency. Moreover, owing to the comparatively flat landscape, the natural drainage is bad.[6]

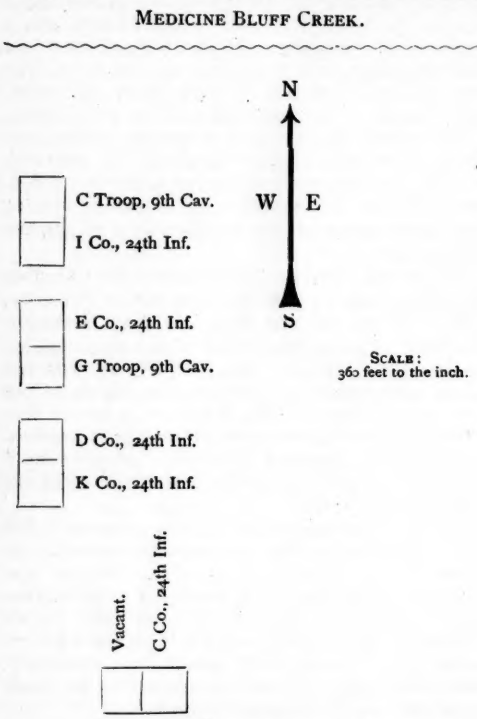
Sir J. Fayrer says, "that much is attributed to climate which is more properly chargeable to defective hygiene and careless mode of living."[7] Without doubt, the hygiene of this fort is execrable, owing to the clayey soil and rank vegetation, and to the disregard of every hygienic law evinced by the builders of the barracks. These are all built of limestone—a porous, hygroscopic rock. The men's quarters (with which alone this article has to do) are of simple construction, without cellars. The floor is about three feet from the ground. The air, however, may circulate underneath, through small apertures left in the wall. There is only one wall (eighteen inches thick), roughly plastered on its inner side. There are no ceilings to the barracks, and each soldier has practically over eleven hundred cubic feet of air-space. All the barracks for the men are substantially similar.

The accompanying figure will show the disposition of these buildings as regards the creek, from which our water supply comes, and the points of

[1] See New Lenox Malaria Case, Boston Med. and Surg. Journ., December 28, 1882.
[2] Dr. C. P. Russel, Medical Record, September 15, 1883.
[3] May 31, 1883. [4] Italics mine.

[1] Medical Record, September 29, 1883, p. 363.
[2] For an able résumé of the status of the bacillus malariæ, see THE MEDICAL NEWS, vol. xlii. p. 40.
[3] Paper read at meeting of American Public Health Association, THE MEDICAL NEWS, November 24, 1883.
[4] Lecture XL. [5] Vol. II. Ziemssen's Cyclopædia.
[6] A long ditch, which partly drained three sides of this Post, was followed by a permanent improvement in the health of the troops. This was cut some years ago.
[7] Croonian Lecture, British Medical Journal, March 25, 1882.

the compass. Each building is one hundred and eighty-six feet long, and is divided equally by a



transverse partition; each half accommodating one company of soldiers. The distance from the shore of the creek to the northern end of C Troop's, 9th Cavalry, quarters is five hundred and forty feet. A passage-way of about twenty feet separates the three buildings, which run north and south, from each other. Nearly a hundred feet further south is the barrack of C Company, 24th Infantry. Medicine Bluff Creek[1] is a stream of varying volume; the water has always more or less vegetable matter suspended in it. When the stream is swollen it widely overflows its banks, and, subsiding, deposits great quantities of dead leaves, grass, etc., in varying stages of decay, along the banks, and even in the forks of trees and tops of bushes..

The garrison of this fort is composed of six companies (until October 8th last there were seven) of colored troops. Only five white enlisted men are serving here. The officers, of course, are white, and the majority of them have their families here.

The prevailing wind is from the south. The next most frequent wind is the north wind, called here "norther." It is always much colder than its opposite, and is popularly believed to bring more malaria.

The directions of the wind at this Post for the years 1880, 1881, and 1882, taken from the records of the Signal Office here, are as follows. Three observations daily.

1880.		1881.		1882.	
Direction.	No. of Observations.	Direction.	No. of Observations.	Direction.	No. of Observations.
N.,	247	N.,	228	N.,	294
N.E.,	102	N.E.,	58	N.E.,	58
E.,	43	E.,	73	E.,	78
S.E.,	227	S.E.,	106	S.E.,	122
S.,	215	S.,	376	S.,	331
S.W.,	74	S.W.,	41	S.W.,	59
W.,	11	W.,	22	W.,	21
N.W.,	58	N.W.,	96	N.W.,	96
Calms,	121	Calms,	95	Calms,	95

Very soon after beginning to attend sick-call, the preponderance of cases taken upon sick report from certain companies excited the writer's curiosity, and a little reflection led to the belief that the position of the company quarters with reference to the creek had something to do with the facts noted. After being relieved as chief medical officer, the writer spent some days in preparing the following tables, and it seems to him that the fruit of his labor may be of general interest.

TABLE I.

Whole number of cases of malarial disease for nine months, and whole number of days of sickness.

	Cases.	Days.
C Troop, 9th Cavalry,	71	231
I Company, 24th Infantry,	48	168
C " " "	44	139
E " " "	39	115
K " " "	28	82

D Company, 24th Infantry, left this post for another station October 8, 1883, and G Troop, 9th Cavalry, was "in the field" for nearly four months. To make Table I. more complete, we have:

Table I. A, for seven months.

	Cases.	Days.
C Troop, 9th Cavalry,	51	152
I Company, 24th Infantry,	35	124
C " " "	32	100
D " " "	28	91

Table I. B, for five months.

	Cases.	Days.
C Troop, 9th Cavalry,	21	57
C Company, 24th Infantry,	17	44
E " " "	12	34
G Troop, 9th Cavalry,	12	29
K Company, 24th Infantry,	9	29
I " " "	8	22

TABLE II.

Average duration of cases.

	Days.
C Troop, 9th Cavalry,	3.25
I Company, 24th Infantry,	3.50 (or 3.02)[1]
D " " "	3.25
C " " "	3.16
E " " "	2.94
K " " "	2.92
G Troop, 9th Cavalry,	2.16

[1] This name arose from an old Indian legend, and not because the water has alleged medicinal qualities.

[1] A case of typho-malarial fever, which terminated fatally after six weeks in the hospital, and which was the only case of continued fever during the period, might, I think, be fairly left out in computing I Co.'s average sickness.

There are, of course, differences in the number of soldiers in each company. Cavalry companies, or troops, as regulations prescribe that they shall be called, number, when full, sixty-six men. Infantry companies number only fifty; however, in actual (mean) strength the companies here during the nine months were nearly equal.[1]

The mean strength of any company is constantly varying from discharges, men being ordered on detached service, etc. With considerable labor, Table III. was prepared. The percentage of sickness to the men of each company actually serving in this Post is here shown.

TABLE III.

Percentum of men sick with malaria in nine months.

C Troop, 9th Cavalry,	135 per cent.
I Company, 24th Infantry,	128 "
C " " "	118 "
E " " "	106 "
K " " "	68 "

Table III. A.

Percentum of men sick with malaria in seven[2] months.

C Troop, 9th Cavalry,	98 per cent.
I Company, 24th Infantry,	94 "
C " " "	89 "
D " " "	71 "

Table III. B.

Percentum for five[2] months.

C Troop, 9th Cavalry,	38 per cent.
G " " "	20 "

Table III. C.

Percentum for one month (Sept. 1883) the most sickly.

C Troop, 9th Cavalry,	46 per cent.
I Company, 24th Infantry,	34 "
E " " "	30 "
C " " "	20 "

Mean strength of the command for the period, 277; total number of malarial cases, 269; per cent., 97. Total number of days lost to the Government by malarial sickness amongst the soldiers, 855. Average duration of all cases, 3.02 days.

A comparison of the tables and the diagram will show that the number of cases of sickness and days of sickness increases in each company as the barracks are nearer the banks of the creek, with the single exception of C Company, 24th Infantry, which holds the third place in Table I., the fourth in Table II., the third in Table III.—Why? Obviously because the quarters of this company lie directly *across* the course of the north wind. Were the south wind as unwholesome as the north, K Company, 24th Infantry, would have the same average of sickness as C Troop, 9th Cavalry, but not so great as C Company, 24th Infantry, because K Company's quarters present a narrow end (twenty-six and a half feet), whereas C Company's quarters offer their whole length to the north and south winds. Leaving out C Company, 24th Infantry, we have a regular gradation, the number of cases, days of sickness, and per cent. of cases gradually diminishing as we go away from the banks of the creek.

Some disciple of Dr. Oldham may say that, as it has been stated above that the north wind is colder than its opposite, may not the chill produced by the sudden changes[1] really cause the malarial troubles? To which the very obvious reply is that there is no difference in temperature between E Company's, 24th Infantry, barracks and those of K Company, same regiment, and yet the one nearer to the creek has the more sickness. I am aware that some remarkable instances have been recorded of the growth of a line of shade trees, or the removal[2] a few hundred yards of a dwelling or barrack stopping malarial fevers, etc. It has even been asserted[3] that screens or mosquito-nets will shut out malaria as well as the insects. But no observations of bodies of men alike in age and condition, eating the same food, wearing similar raiment, performing the same duties, etc., have shown—at least so far as I know, that a difference of residence of less than one hundred feet from the banks of a stream will make a difference in the number of cases of sickness occurring on the *same* days.

There is some diversity in the duties of the cavalry and infantry. The former have horses to groom and water. Therefore G Troop, 9th Cavalry, has been brought into every Table where possible, in order to compare it with C Troop, same regiment.

The banks of the creek afford all the supposed factors for the production of malaria, and to the writer it seems that the course of the malarious sicknesses, during his term as post-surgeon, demonstrates that these factors do produce the specific poison here, which the north wind brings into the post.

That there is as yet an unknown factor, as assumed by Dr. Sternberg[4] and others, seems probable. The malarial virus must, as has often been pointed out, lose its potency very rapidly in the air; otherwise C Company, 24th Infantry, would have the highest, instead of the third place in the Tables, since their exposure is greater to the noxious wind than is that of any other company.

The blacks seem about as liable to malarial poisoning as the whites, in this garrison, but are much more amenable to treatment, as the average duration of cases amongst them (3.02 days) shows.

These soldiers are selected men, mostly young, without physical defects, and, generally speaking, of good habits. Malarial diseases owing to the

[1] It is easier to get recruits for infantry than cavalry regiments among the blacks, and our infantry companies are nearly or quite full. In an Indian country, the cavalry service is generally more arduous.

[2] The computations are made in these tables for those months only in which the companies mentioned in the table were doing duty in the Post together.

[1] Without being able to collect precise data, I dare say that the fall of the thermometer generally exceeds 20° F. within two hours after the setting in of a norther.

[2] See admirable description in Watson's Practice, and other standard text-books.

[3] British Medical Journal, April 1, 1882, Croonian Lecture.

[4] Op. cit.

fever, anorexia, emesis, constipation, loaded tongue, yellowish conjunctivæ, etc., (the first symptom is invariable, and some of the others quite constant) are not easily feigned.

Malingering is mentioned rather to show that as a possible source of error it has not escaped notice, than because it seems probable that it would vitiate the conclusions to be drawn from so large a number of cases.

Could a wall, twenty feet[1] in the sheer, be built along the banks of the creek it would, I believe, improve the health of this command.

MEDICAL PROGRESS.

THE THERMO-CAUTERY IN THE TREATMENT OF ANAL FISTULE.—DR. E. FARCY recommends the thermo-cautery in the treatment of fistula in ano, and draws the following conclusions as to its advantages:

1. The operation is rapidly performed, and several fistulous tracts may be operated on at the same time.

2. Chloroform is unnecessary, and there is no danger of either primary or secondary hemorrhage, as by other methods.

3. By this method the vitality of the tissues is excited and there is only moderate suppuration. The wound is protected from the direct influence of the air before granulation sets in.

4. There is no fever, no erysipelas, no phlegmons or purulent infection, no relapse, and the cicatrix is linear. It is therefore the best method for operating in these cases.—*Revue de Thérap.*, April 1, 1884.

GASTROTOMY.—A remarkable operation of this kind was performed by Mr. Knowsley Thornton on Tuesday, May 6th, at the Samaritan Hospital. A girl, aged eighteen, who was a patient of Mr. H. P. Symonds, of Oxford, had indulged for some years in the habit—not unknown in the records of clinical medicine—of eating the combings of her hair, and swallowing cotton and other like materials. A large mass gradually collected, which was moulded into the shape of the stomach, and measured nine and a half inches in length, and five in breadth at the cardiac end. The stomach was opened on its anterior surface by an incision five inches long. Very little hemorrhage ensued, and the mass was extracted by means of a vulsellum. During this process, precautions were taken so that neither the wound nor the peritoneum was fouled by the contents of the stomach. The wound was closed by five silk sutures, deep and superficial, interrupted and continuous. A case of a similar kind, which terminated in the recovery of the patient, is recorded by Schönborn in Langenbeck's *Archiv*, vol. xxix., 1883, page 619. Mr. Thornton's patient was doing well at noon on Thursday, May 8th.—*British Med. Journ.*, May 10, 1884.

RESECTION OF MUSCLES IN INFANTILE PARALYSIS.—MR. KEETLY has recently undertaken the resection of part of the quadriceps extensor femoris in a case of infantile paralysis, causing inability to extend the right knee. By shortening the weak, relaxed, and partly atrophied muscle, the operator hoped to increase its strength, with the aid of electricity during recovery from the operation. Mr. Willett has already resected the tendo Achillis in paralytic talipes calcaneus, with good results, finding that the shortening of the abnormally elongated tendon enables the muscles of the calf to regain some portion of their lost functions, especially when the muscular wasting has been chiefly due to disease, and has not advanced too far. Mr. Keetly's patient was a boy, aged six, who had suffered from paralysis of the right lower extremity for four years, and the muscular atrophy was not complete, yet sufficient to prevent thorough extension of the knee. A longitudinal incision was made in front of the thigh, about three inches in length, ending an inch above the patella; the skin was held apart by retractors, and one inch of the entire substance of the quadriceps was cut away with scissors, about two inches above the patella. The separated ends were united by means of about one dozen carbolized catgut ligatures. Esmarch's bandage had been applied before operation, and only one small artery required ligature. The wound was dressed with a small iodoform pad and carbolic gauze, and the limb placed on a back-splint at an angle of sixty degrees with the bed. The operation was performed on May 5th. The wound healed rapidly and perfectly, and, when a sufficient time has elapsed, the results will be made known.—*British Med. Journ.*, May 31, 1884.

PORRO-MUELLER OPERATION.—DR. FRANZOLINI performed this operation on May 2, on a woman thirty-six years of age, for pelvic stenosis and deformity from osteomalacia. The fœtus was extracted dead. The pedicle was treated by the extra-peritoneal method, and Listerian precautions were used. All went well until the tenth day, when the patient was seized with a pleuro-pulmonary complication, which carried her off in two days.—*Gazz. Med. di Torino.*, May 15 and 25, 1884.

LAPAROMYOMOTOMY.—R. KALTENBACH gives a review of his ten cases, with indications for the operation. Of his ten cases eight were supravaginal operations, and two were myomotomies. In these two the tumors were more or less pediculated, and the intraperitoneal method was used. In the eight cases the cavity of the uterus was opened, and the stump treated by the extraperitoneal method. In most of the cases Hegar's operation was employed, that is, with the double elastic ligature around the neck, with the parietal peritoneum sewed up, and the stump rendered aseptic by the actual cautery and chloride of zinc, after being fastened extraperitoneally by lance-needles to the abdominal walls. Only one case, in which the stump was treated by Péan's method, proved fatal. In the case of women who have not come to the menopause Kaltenbach leaves the ovaries.

Large circumference of the tumor, rapid growth with bleeding, severe bleeding, or symptoms of pressure, are the indications for operating. For outward advancement of small tumors toward the abdominal wall Kaltenbach recommends removal by the vagina. The extraperitoneal treatment of the pedicle is to be preferred. The intraperitoneal method should only be used when it insures safety against bleeding and sepsis.—*Centralbl. für Chir.*, May 17, 1884.

[1] Signor Crudeli has stated that an obstacle twenty feet high and perpendicular will stop the course of the malarial poison. Boston Medical and Surgical Journal, January 18, 1883.

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BEER-DRINKING AND HEART DISEASE.

THE bodily ills that come of the abuse of drink are so many and so dire that it would appear almost impossible to add to the dreary catalogue of them. Yet BOLLINGER, at a recent meeting of the Ärztlichen Verein, in Munich, called attention to the part played by beer-drinking in the causation of certain forms of heart disease, a subject which, if it be not altogether new to some of our readers, has certainly not been generally understood.

Most writers, it is true, speak very guardedly upon the subject of idiopathic hypertrophy and dilatation of the heart, but Seitz and others have adduced an abundance of evidence to prove that cases in which the fatal termination is directly due to this form of cardiac disease are of frequent occurrence. The records of the Pathological Institute of Munich show that idiopathic hypertrophy of the heart is of much more common occurrence in that city than elsewhere. The observations of several local pathologists confirm this statement. The figures are not without interest. Spatz found among 638 men no less than 55 affected with so-called myocarditis. Among 433 women, there were 23 cases. Among 290 men between the ages of thirty and sixty years were 41 cases of myocarditis, or 14 per cent. Among 144 women at the same period of life, only 10, or 7 per cent., were affected. Hermann's cases showed among 305 sections, 49 examples of plethora-heart as the cause of death in men, while only 3 occurred in women.

Von Buhl regarded these hypertrophies of the heart without discoverable cause, such as valvular lesion or arterial sclerosis, as the result and product of a chronic myocarditis, which usually ended fatally in consequence of fatty degeneration of the muscle. Under the influence of this teaching, and because the patients, as a rule, enter the hospital and die with symptoms of failure of the heart, this form of hypertrophy came to be generally regarded in Munich as the result of an inflammatory process. Bollinger, finding, in most of the cases, no anatomical evidences of inflammation, and just as seldom fatty degeneration, cannot accept this view, and regards the hypertrophy as simple, or idiopathic. At his suggestion, Schmidbauer undertook, by means of exact observations, to establish the extent of this epidemic of cardiac hypertrophy in Munich upon a statistical basis, and to discover its cause. In 1000 post-mortem examinations there were 46 cases, 32 men, 14 women, of undoubted idiopathic hypertrophy of the heart, as the cause of death. As an associated condition—not as the cause of death—idiopathic hypertrophy of the heart was found in 33 other cases, 23 men, 10 women. All cases of enlargement of the heart due to lesions of the valves, or disturbances in the pulmonary circulation, or associated with arterial sclerosis, or granular atrophy of the kidneys, were of course excluded. Certain of these cases of idiopathic hypertrophy of the heart were, perhaps, to be accounted for by prolonged excessive muscular effort and bodily strain. But the greater number, as was determined by carefully worked-out personal investigation, particularly among suicides, were explicable only by habitual excesses in beer-drinking in connection with a true plethora, the existence of which has, however, been of late denied by a majority of physiologists and pathologists.

The habitual consumption of beer in excessive quantities tends to hypertrophy by the direct action of alcohol upon the heart, by the enormous amount of fluid introduced into the body, and by the easily assimilated nutritive constituents of the beer itself. Furthermore, such habits are often associated with great bodily activity and an at least relatively luxurious manner of life. The average weight of the normal heart in men is relatively greater in Munich than elsewhere, a fact, without doubt, dependent upon the excessive consumption of beer in that city. The characteristic changes in the form of hypertrophy under consideration consist in the participation of both sides of the heart, and in an enormous increase in the volume of the primitive muscular elements, with enlargement of the nuclei. Whether or not actual numerical increase in the muscular fibres takes place cannot be known.

Many individuals addicted to such excesses attain an advanced age notwithstanding cardiac hypertrophy, by reason of constitutional peculiarities, an active open-air life, or an enforced moderation, but the

greater number perish after brief illness with symptoms of cardiac failure. At the post-mortem examination are discovered moderate dropsy, pulmonary œdema, brown induration of the lungs, bronchitis, congestion of the lungs, liver, spleen, kidneys, and other organs. Fatty degeneration of the muscular wall of the heart is absent in most of these cases, and death must, in the absence of adequate anatomical lesions, be looked upon as due to paralysis of the cardiac nerves and ganglia.

The condition of such subjects not rarely amounts to a true plethora of the most typical kind, such as is seen among the drivers of beer-wagons and workers in breweries in this country.

The frequency of idiopathic hypertrophy of the heart in men, in whom it is apt to prove fatal in the very prime of life, is in strong contrast with its infrequency among women. The latter also suffer from less pronounced forms of the affection.

It is interesting to note that while the average amount of beer consumed during the year 1882 elsewhere in Germany ranged, in different districts, from 54 to 186 litres for each person, in Bavaria it reached 233 litres, and in Munich 432.

These facts constitute an important contribution to the subject of the non-valvular affections of the heart, and are, from their obvious bearings and the favorable circumstances under which they have been studied, of great value in their relations to practical hygiene. The excesses in beer common in some parts of Germany are rare in the New World, but that such excesses are attended by a direct and grave danger, hitherto little suspected, should be generally understood. It is unfortunately a sermon little likely to reach or to be heeded by those to whom its lessons would be of greatest use.

THE PROPHYLAXIS OF TUBERCULOSIS.

THE prophylaxis of tuberculosis was recently considered at a meeting of the Hygienic Section of the Vienna College of Physicians, and a committee, consisting of HEIN, SCHRÖTTER, WEICHSELBAUM, KAMERER, KOWALSKI, and KRATSCHMER, reported a series of directions based on a recognition of Koch's views, which are published in the *Wiener medicinische Wochenschrift* of May 10th.

In the first place, it is assumed by the committee as demonstrated, that the expectoration of individuals with cavernous excavations of the lungs, and the fecal discharges of those having intestinal tuberculosis, are the chief sources of transmission of the disease; hence, it is to such cases that precautions apply. In apartments occupied by such, an abundance of fresh air should be provided, the floors and walls, body- and bed-clothing should be kept scrupulously clean; because it is the dried sputum and the infectious excretions adhering to them which gradually become pulverulent and so liberate the ever-living and dangerous bacilli. To the same end, expectoration into handkerchiefs should be discouraged, and spit-cups should be substituted. The drying and pulverization of non-disinfected expectoration outside of the sick-room should be prevented by the frequent emptying of spittoons, and disinfecting the contents with a five per cent. solution of carbolic acid. Especially should this be done where many persons are grouped together, as in hospitals, lecture-rooms, asylums, barracks, railway stations, and, above all, where large numbers of phthisical persons are grouped together, as at health resorts especially frequented by phthisical cases. So, too, disinfection should extend not alone to expectoration and to alvine dejecta, but to other discharges from tuberculous tissues and organs, as the pus from tuberculosis of the skin and of bones, as well as to bandages, and bed- and body-clothing which become soiled with the discharge.

The disinfection of clothing which can be washed is to be accomplished by boiling for an hour with sodium carbonate, while other materials are purified by exposure for an hour to dry heat at a temperature of 212° F., or to the action of steam at the same temperature, and for the same length of time.

Persons with advanced tuberculosis should, as far as possible, be isolated from other members of the family, and where this is impossible, hospital treatment should be provided; especially should infants and feeble children be removed from households which include such cases. Close proximity of places of sleeping, and especially the sharing of the same bed by healthy persons and those affected with phthisis should be avoided, while especial care should be taken to secure the necessary isolation of cases of advanced phthisis where the residence happens to be a store for the sale of articles of food. Marriages of persons with tuberculosis should be forbidden, with a view to preventing at once the transmission of phthisis from man to wife, and to posterity.

Since the effect of the various affections of the respiratory organs is to increase the predisposition to tuberculosis, the possibility of the occurrence of such diseases should be reduced to a minimum. Hence everything should be done to diminish dust formation within doors and in the streets. Measures to this end are proper house-cleansing and street-cleansing regulations. And for the same reason, physicians should coöperate with the civic authorities in preventing the spread of whooping-cough and measles.

The use of the milk of cows affected with bovine phthisis should be discouraged, while that from animals having tuberculosis of the udder should be positively prohibited. Such milk should only be

taken after having been well boiled. The use of the flesh of animals similarly affected should be forbidden.

The rules of prophylaxis include some which are not justified either by the dictates of humanity, or by clinical experience; as, for instance, the isolation of the sick from their friends and families, and remanding them to hospitals where they not only miss the sympathy which is so comfortable to the sick, but may even suffer for want of proper nursing.

There can be no doubt, however, that advantage will result from the systematic consideration of these suggestions. Hitherto partially observed measures will thus be more rigidly carried out, and new measures enforced, while it is scarcely likely that at the present day hardships will be practised on the unfortunate whose lot is already sufficiently sad, without the additional pang of separation from friends.

In the discussion which followed the reading of the report there was much difference of opinion, the question being chiefly as to whether a stringent observance of the regulations suggested should be insisted upon, or whether some latitude should be allowed, the prevailing view rather favoring the latter, toward which we must express our own inclination.

THE MODE OF ORIGIN OF GENERAL MILIARY TUBERCULOSIS.

ALTHOUGH it has been for some time recognized that a very large number of cases of general miliary tuberculosis are secondary to primary foci, it cannot be said that we have had, until quite recently at least, any accurate information as to the *modus operandi* of such foci.

BUHL early asserted that the general process originated in absorption from a softening mass of cheesy matter, but how this took place, and why in the majority of instances the cheesy focus fails to give origin to secondary miliary tuberculosis, he did not explain. PONFICK'S discovery of tuberculosis of the thoracic duct, and WEIGERT'S of tuberculosis of the veins, brought us a step nearer to the solution of the problem. The latter published, in 1879, three cases of acute general miliary tuberculosis in which he had discovered a large thrombus-shaped tubercular focus in a pulmonary vein, which he regarded as the starting-point of the tuberculosis. In 1882, he reported nine cases of acute general miliary tuberculosis, in seven of which he found tuberculosis of veins, and in two tuberculosis of the thoracic duct. The former appeared as true tubercular infiltrations of the vessel walls, projecting into the interior of the vessel in a thrombus-like, or polypoid manner, smooth, except at a single point of ulceration, and centrally cheesy. Upon these observations Weigert based the assertion that *acute general miliary tuberculosis*, in adults at least, *depends upon a tubercular focus either in a vein or the thoracic duct*—ascribing the acute tuberculosis to the sudden introduction of a large quantity of tubercular poison, either from a large focus, or numerous small foci, while that form of general miliary tuberculosis in which only a few nodules are found in separate organs, is ascribed to the disintegration of a small vein-tubercle. So, too, the nodules of varying size and limited number found in the spleen, liver, or other organs, along with pulmonary tuberculosis, he ascribed to the introduction of a small amount of tubercular matter into the blood.

Quite recently, WEICHSELBAUM, in the *Wiener med. Wochenschrift*, No. 12, March 22, has apparently supplied the missing link in the proof of this proposition, by the publication of three cases of acute general miliary tuberculosis in which, associated with tuberculosis of the veins, he found tubercle bacilli in the blood of the patients, after death. The first case was that of a young woman of twenty-five, who died of phthisis six days after aborting of a four months fœtus. She had suffered with cough, shortness of breath, and fever for some weeks previous. The autopsy revealed tuberculosis of the uterine veins at the insertion of the placenta, both Fallopian tubes distended with cheesy matter, and their mucous membrane injected, thickened, and infiltrated with small nodules. Some of the cheesy and softened tubercular nodules as large as a pea, and containing nests of closely packed bacilli, protruded into the lumen of the veins and fused with the thrombi found in their interior. Out of twelve slides of blood from a heart-clot—clotted blood was used because of its containing a large proportion of bacilli—four contained the parasite.

The second case was a man of forty-three, in whom a branch of the pulmonary artery in the right upper lobe contained a polypoid tubercle larger than a bean, ulcerated at one point, cheesy at its centre, and continuous with a large cheesy focus in the same lobe. Preparations from a white thrombus from the left ventricle contained relatively numerous bacilli in groups of from two to six, as did also fresh coagula, and even fluid blood from the femoral vein, although in smaller numbers.

The third case exhibited, besides general miliary tuberculosis, cheesy foci and bronchiectasis, a cheesy abscess about the tendon of the right supinator longus muscle, and chronic tuberculosis of the seminal vesicles, the left vas deferens, the epididymis and prostate. A cheesy mass surrounded a large vein of the pudendo-vesical plexus, and in one place had perforated the vein. Out of nine preparations made from heart coagula, two contained bacilli.

Weichselbaum believes it a necessary inference from these facts, that in chronic general miliary tuberculosis, that is, the form in which along with pulmonary tuberculosis single nodules of different

size and age are found in the liver, spleen, or kidneys, these secondary deposits arise in the same way, even though the bacilli are not found in the blood, since they may easily escape detection when few in number. In support of this view, Weigert has found in two cases of this kind small tubercles in the walls of veins.

REVIEWS.

M. PASTEUR—THE HISTORY OF A SAVANT.

THIS is the title of a little volume, the fourth edition of which has been recently issued in Paris. Louis Pasteur was born December 27, 1822, and is, therefore, in his sixty-second year. He showed, when a young man, great ability as a painter, but gave himself especially to the study of chemistry, making in this department of science important discoveries. His first public position seems to have been that of assistant professor of chemistry at Strasbourg, and, while living in that city, a curious story is told of him. He was engaged to be married, but, when the wedding-day came, seemed to have forgotten, in his scientific pursuits, the appointed event, and had to be sought in his laboratory, and reminded that the time had come for his marriage. When thirty-two years of age, he was appointed Dean of the Faculty of Sciences at Lisle. As one of the chief industries in the department in which he lived was the manufacture of alcohol, he determined to give part of his lectures to the study of fermentation, and thus began those wonderful investigations by which he has opened a new world to science. Although not a physician, he has probably done more to influence medical theories and therapeutics than any man of the century.

When his doctrine of an attenuated virus of certain malignant diseases of inferior animals was announced in the Academy of Sciences, Bouley exclaimed: "A new doctrine is revealed for medicine, and this doctrine seems to me powerful and luminous. A great future is at hand; I anticipate it with the faith of a believer, and the zeal of an enthusiast."

We cannot follow his biographer in his sketch of Pasteur's subsequent studies of spontaneous generation —a doctrine which, we need not tell our readers, he utterly rejects—of wine, of the diseases of the silkworm, of beer, of chicken cholera, of malignant pustule, and of septicæmia.

In 1868 overwork brought hemiplegia, and even then, when he was expecting death, he dictated to his wife a note upon the studies so dear to his heart, and which was communicated to the Academy of Sciences. He has never completely recovered, and the members of the left side are still impaired in motion.

The French government has liberally provided for his researches. The ancient garden of the old college Rollin has been placed at his disposal, and there he has built stables for horses sick with glanders; stables, too, for diseased sheep, and a kennel for dogs with hydrophobia. On the ground floor of the laboratory, he has collected a world of animals for experiments—dogs, hens and chickens, rabbits, and guinea-pigs. In all vivisections, the animal is chloroformed, and Pasteur remarks—the words are well worthy the attention of antivivisectionists—"Never have I had the courage to kill a bird in hunting; but when experiments are concerned, no scruple stops me. Science has the right to invoke the supremacy of the end."

His biographer gives a graphic account of a visit made by Pasteur and himself at the call of a *veterinaire*. It is mentioned that there does not occur at Paris a case of hydrophobia to which Pasteur is not called. They went taking with them some rabbits, for the purpose of having them bitten by the dog. They found a huge bulldog, howling and frothing in his cage, and an effort was made by putting an ear of one of the rabbits between the bars of the cage to have it bitten, but failed, and Pasteur said, "Nevertheless it is necessary to inoculate these rabbits with the saliva." The dog was then lassoed, drawn out of the cage, the jaws tied, and, stifled with rage, eyes injected, the body shaken with a violent spasm, fixed upon a table, when Pasteur, bringing his own head a finger's breadth from the dog's covered with froth, aspired with a tapering glass tube some drops of the saliva. The biographer remarks that it was in this terrible *tête-á-tête* Pasteur has appeared to him the grandest.

SOCIETY PROCEEDINGS.

MEDICAL ASSOCIATION OF THE COUNTY OF NEW YORK.

Stated Meeting, June 16, 1884.

THE PRESIDENT, WM. DETMOLD, M.D., IN THE CHAIR.

DR. J. LEWIS SMITH read a paper on

THE SUMMER DIARRHŒA OF CHILDREN.

This, as was well known, he said, was principally confined to children under two and a half years of age, and was much more common and fatal in cities than in the rural districts. Of late years, it was gratifying to know, however, that the mortality from this cause had been somewhat controlled in consequence of the exertions of health boards and of the effect of other agencies. Still, it remained the great scourge of the community during the summer months. In the year 1882, the deaths in New York from diarrhœal diseases in children under five years of age for the different months were as follows:

January,	34 deaths.
February,	50 "
March,	57 "
April,	63 "
May,	72 "
June,	231 "
July,	1053 "
August,	877 "
September,	382 "
October,	195 "
November,	68 "
December,	35 "

Among patients over five years of age suffering from diarrhœal diseases, the deaths for the different months of the same year were as follows:

January,	14 deaths.
February,	15 "
March,	14 "
April,	20 "
May,	15 "
June,	19 "
July,	131 "
August,	149 "
September,	84 "
October,	55 "
November,	31 "
December,	24 "

It would thus be seen that in the year 1882 there were nine times as many deaths during the five months from the first of June to the last of October as during the remaining seven months of the year; while in the same year seven and a half times as many persons under five years as over that age died from diarrhœa. These figures probably represented very fairly the average ratios in large cities. In the last three years in which the New York Board of Health issued annual instead of weekly reports, the deaths from diarrhœa for the various months were as follows:

	1873.	1874.	1875.
January,	94	43	46
February,	84	34	52
March,	97	80	58
April,	114	47	45
May,	95	61	89
June,	220	147	157
July,	1514	1005	1387
August,	967	1007	1012
September,	424	587	608
October,	213	255	185
November,	87	105	57
December,	53	56	50

In these three years there were altogether 9855 deaths from diarrhœa, and all but 1407 of them occurred in children under five years. The same general facts were true in regard to other cities in the United States and Europe; although in many of them the proportionate mortality was not so great. In country towns and villages, and in the rural districts generally, on the other hand, cases of diarrhœal disease occurred comparatively rarely, and were usually of a mild type.

There were two distinct factors in the causation: *first*, the atmospheric; and, *second*, the dietetic. In regard to the first, the prevalence of diarrhœa corresponded closely with the increase of atmospheric heat. In New York, it commenced in May and reached its maximum in July and August, when it constituted by far the most frequent and dangerous disease met with in the city. In September it began to diminish again. In October, however, the mortality from it was always considerably greater than during the month of May, although the average temperature was lower than in the latter; which would seem at first to be contrary to what we would naturally expect. But this was explained by the fact that the deaths were usually those of infants who had contracted the disease during the summer, and had never recovered from its debilitating effects.

The fact was, therefore, an undisputed one, that the summer season was one of the great causes of the diarrhœa. The exact causative agents in its production were not, however, so easy to arrive at; since much the same degree of heat prevailed in the rural districts as in the cities. It seemed probable, therefore, that noxious effluvia constituted or contained the morbific agent. One year, on the 10th of May, in an institution with which Dr. Smith was connected, an offensive odor was noticeable in the building, which was found to come from a manure heap on some neighboring premises; and in consequence of the emanations from it four children (of whom one died) were taken with diarrhœa. He also mentioned the fact that once, when visiting a tenement district in the city on behalf of a citizens' association, he found that in the part of a certain street lying between two avenues, which was compactly built up on both sides with wooden tenement-houses, nearly every infant was ill with diarrhœa.

The population was almost exclusively foreign, and there being no sewers, all the refuse of the houses was thrown into the street. Water was also constantly poured out into it, and the decay of the vegetable and animal substances in the hot summer weather rendered the whole air foul and stifling. In another locality, where there were a number of tripe-dealers and a low class of butchers, who were accustomed to resort to bone-boiling, diarrhœa was very prevalent and fatal both in the street and the adjoining neighborhood. Murchison found that twenty out of twenty-five boys were attacked with diarrhœa, which was excited by the effluvia from an old drain near the school which they attended, and the purgative effect of impure air was everywhere well recognized. Thus, medical students previously in good health were not infrequently attacked with diarrhœa as the result of working in the dissecting-room.

Whether organic impurities giving rise to diarrhœa were organized or not, was not yet definitely determined. A bacillus of cholera infantum, it was true, had been discovered; but whether it was a causative agent, or merely an incidental concomitant, was still an open question. Dr. Smith then referred to certain gases and gaseous combinations liable to be found in the air which were supposed to have a purgative effect; and among the most active chemical compounds in this respect were the sulphates. In all large cities solid impurities were very numerous in the atmosphere, as could be readily seen by observing the air lit up by a pencil of sunlight; and this accounted, in great part, for the hazy cloud that could usually be seen hanging over towns and cities. In the present state of our knowledge, we had to be content with saying that impure air was one of the great causes of infantile diarrhœa, without being able to state precisely its *modus operandi*. This led us to the presumption, however, that, in addition to heat, there were infectious germs; and the conditions existing in the summer in cities were certainly favorable to the development of low organisms. In this connection, Dr. Smith referred to the various evils incident to the life in crowded tenement-houses as specially liable to result in the production of diarrhœa among infants and young children.

He then passed on to the consideration of the second great cause—the dietetic. The mode of feeding was a most important element in the causation of diarrhœa,

and, in cities, infants under eight months old, if bottle-fed, almost invariably contracted the disease in summer. In institutions it was a well-known fact that every bottle-fed child under four, and even six months died at this season. Among the tenement-house population, one great trouble was that young children were given fruit and ordinary table-food; and hence the second summer, when the infants were no longer nursed at the breast, was always regarded with peculiar apprehension. Occasionally it happened that from continued ill-health the milk of the mother or nurse became deteriorated (containing cholesterine), and would not agree with the infant. A quiet life, devoid of any active excitement, was essential to the proper performance of lactation; as was especially shown in the cases reported in the *Louisville Medical Journal*, in which venereal excesses on the part of wet-nurses were followed by the sudden death from diarrhœa of the infants to whom they were giving nourishment. All authorities agreed that nothing was so good for infants as breast-milk; but where they were deprived of this, cows' milk was, as a rule, the best substitute for it. The trouble with the latter, however, was, that if it came from cows fed in or near the city, it was apt to be deficient in nutritive qualities; while if it was brought from a distance, lactic acid formation was liable to commence before it could be used. Hence it was that such a variety of prepared foods had been suggested.

In New York, improper feeding was quite sufficient to produce diarrhœa without the influence of atmospheric conditions; but where the two causes were combined, it was not to be wondered at that the infant mortality was so large during the summer months. Before the establishment of the present Foundling Asylum, all foundlings were sent to the Almshouse on Blackwell's Island, where they were entrusted to the care of pauper women. who were filthy and careless in their habits, and who fed them with improper diet. The consequence was, that such children, as a rule, always died of diarrhœa before reaching the age of two months, and if by any chance one of them occasionally lived for a longer period than this, it was regarded with profound wonder. Here, again, the two great factors in the causation of the trouble were foul air and improper food. Since the Foundling Asylum had been organized, he was happy to say, many of these little waifs were rescued from death.

At this point he alluded to the supposed influence of dentition in the etiology, and stated his positive conviction that this was not in reality a cause. This, he thought, was proved by the fact that infants under three or four months (not having as yet reached the age of dentition) were quite as liable—and even more so—to diarrhœa than the older ones in whom the process was taking place.

On account of the length of the paper, Dr. Smith was obliged to omit considerable portions of it in the reading, and he therefore passed over the description of the symptoms, merely pausing to remark that in the great majority of cases the disease began very gradually. Hence mothers were very apt to let the trouble run on for one or two weeks (under the impression that it was due to dentition and was really beneficial to the child) before calling in the services of a physician. Vomiting, as a rule, was not an early symptom. But there were certain sudden and severe cases which were properly designated as cholera infantum. This term, he thought, should be restricted to those cases in which the symptoms were much more violent than ordinary. It was almost as severe as true Asiatic cholera, and in no other disease except this was such a marked change in the appearance of the patient so quickly produced. It was also sometimes called cholera from diarrhœa; and it was fortunately not so frequently met with now as formerly.

In referring to the anatomical characters of the disease, he stated that he was firmly convinced that it was an inflammatory affection from its very commencement. In eighty-two cases, of which he had the records, he had made careful post-mortem examinations, and had found in all of them marked hyperæmia, which was confined for the most part (although not exclusively) to the ilium and colon. Hence it was, in reality, an ilio-colitis.

Omitting the consideration of the diagnosis and prognosis, and of the best preventive measures, he passed on to speak of the curative treatment, which, he said, comprised four essential points, viz.:

(1) To give the best available food.

(2) To supply the child with pure air.

(3) To aid digestion.

(4) To use such medicinal agents as could be safely employed to check the diarrhœa.

If the mother was not able to nurse her child, and a wet-nurse could not be provided, it became the physician's duty to recommend some substitute for breast-milk. At a very important conference of German physicians of eminence in connection with diseases of children, held at Salzburg, in 1881, all the delegates agreed that human milk contained all the requisite physiological elements quantitatively and qualitatively suited to the growth and development of the infant, and that where this was not available, animal milk constituted the best substitute. Of the many prepared foods now in the market, it was declared that they could in no way substitute mother's milk, and their use was strongly condemned. It was unfortunately the fact, however, that cow's milk in cities was extremely apt to be defective, and likely to be itself one of the causes of diarrhœa. An analysis of the various infants' foods showed that all which consisted to any extent of cow's milk differed widely in constitution from mother's milk. Nestle's food, however, where it seemed to agree with a child, was probably beneficial from the large amount of Swiss condensed milk which it contained. How to modify cow's milk so as to make it resemble human milk as closely as possible, was one of the most important suggestions that emanated from the German conference referred to; and this modification was made by peptonizing the milk. This peptonizing had the effect of rendering the casein, which was the chief source of indigestion, easily digestible, and the process was to be suspended as soon as the milk began to assume a bitter taste. In peptonized cow's milk the casein was found to be in delicate flakes instead of the hard masses in which it ordinarily existed in this fluid. For this very important advance in infant dietetics the profession was indebted to Pfeiffer, of Wiesbaden. In order to have the milk in the best possible condition for the child's use, it was necessary to peptonize it in small quantities as required. Dr. Smith then described the way in which

the infant's diet now used at the New York Infant Asylum was prepared; five grains of Fairchild's extractum pancreatis and ten grains of sodium bicarbonate are added to one gill of warm water and one pint of cow's milk. The liquid should be tasted frequently during the course of preparation, and as soon as it became in the slightest degree bitter, the peptonizing should be arrested. This could be done either by applying heat or placing the milk on ice, and the latter he considered preferable, as it only suspended the process (which it was desirable should be renewed in the child's stomach); while the application of sufficient heat to arrest it had the effect of destroying the ferment. Of this peptonized cow's milk, one part to three parts of water should be used for a child of one month or under, one part to two parts of water for a child of three months, and a dilution of from one-third to one-quarter water for a child of six months. Before the process of peptonizing was resorted to, barley-water was frequently used to dilute the milk, under the supposition that the farinaceous substances mechanically separated the cakes of casein into smaller masses, and this was probably the next best substitute. Baron Liebig had been the pioneer in directing a physiological substitute for mother's milk, and by his process of converting starch into grape sugar had conferred a great favor on humanity. Having spoken of the use of wheat flour and malt extract in the preparation of diet for infants, he alluded to several of the foods now used to a considerable extent in this country. To such as Ridge's food and the imperial granum, milk had to be added, as they contained none. In speaking of condensed milk, he said that Borden's milk, as served fresh from the wagon, contained no cane sugar; while this was always a constituent of the canned condensed milk. To select the best food for an infant was one of the most important duties of the family physician. The portion of the paper devoted to the medicinal treatment of summer diarrhœa was omitted.

DR. H. A. POOLER, of Goshen, New York, said that, having some years ago been obliged, on account of ill-health, to give up his practice in New York and remove to a farm, he had taken great interest in the investigation of the milk-supply of the city, and had endeavored, so far as he was able, to assist in the correction of some of the evils attendant upon it. Mother's milk was the natural food of the infant, and it was supplied to the child at a temperature of from 98° to 100°. In comparing mother's milk with good commercial cow's milk, it was found that they each contained about three and a half per cent. of fat. The great difference between them was in the quantity of casein; the mother's milk containing only about two and a half per cent. of it, and cow's milk about six per cent. In addition, the casein of cow's milk was harder and more difficult of digestion. If cow's milk were diluted one-half with water, the quantity of casein, it was true, was reduced one-half; but, unfortunately, the fat was also reduced in a like proportion. The child fed upon such diet, therefore, was deprived of one-half its natural source of growth, and enfeebled digestion and an unnourished body would be the result. But the child was also robbed of its nourishment to a greater extent than this. The milk before it was dispensed in the city passed through the hands of a number of dealers and speculators, by whom from forty to sixty per cent. of water was added to it. Even this, however, was not all. The milk, instead of being produced within a radius of sixty miles of New York, as it should be, was, as a rule, brought from very long distances. This was because it could be purchased at lower rates at a distance, and the competition was so great that the farmers near the city did not receive sufficient compensation to pay them for providing a regular supply of unadulterated milk. In consequence, the milk was from forty-eight to fifty-four hours old by the time it reached the consumer's residence. The dealers were not scrupulous, however, and if the milk became turned before it was delivered, they did not hesitate to add to it borax, soda, or other substance which might prove injurious to an infant's stomach. In this diluted milk, brought from such a long distance, there was very apt to be found a large amount of peculiarly hardened casein, resulting from the removal of fat, which was known among milkmen as "hickory curd." Finally, in order to keep the milk for the long time that was required, it was necessary to add a large lump of ice to each can, and this ice, being usually gathered from low and shallow ponds, was often filled with organisms that were exceedingly liable to be a source of irritation and disease. In addition to the hard curd, the presence of foreign substances, both animal and vegetable, in the milk was unquestionably a not infrequent cause of diarrhœa in children.

It was the duty of the medical profession, who were the custodians of the public health, to see that there should be a reform in this matter; and a good deal had already been accomplished towards it. Of late, the reprehensible practice of giving cows fermented food had been less common than formerly; and a bill had recently been passed by the legislature which prohibited this entirely. The New York City Board of Health and the State Boards of both New York and New Jersey had been appealed to to provide that the milk supply should be as good and as free from adulteration as possible, and, in consequence of this action, the quantity of milk brought to New York had been reduced by one hundred thousand quarts. The result of this improvement in the quality of the milk was, that while in 1882 there were 19,000 deaths from diarrhœa, in 1883 this mortality was reduced by 3664; and it was hoped that in the present year there would be a still greater reduction. There was plenty of good milk to be had within a comparatively short distance of New York, if the farmers could only be sufficiently encouraged to produce it, and he trusted that every one of these present would do what he could in improving the milk-supply of the city. If each one would select some milkman in his district, and, having convinced himself that the milk which he sold was of good quality, would recommend him to his patients, no little good would be accomplished in the establishment of a high standard for milk, which it would be to the interest of the dealers to maintain. In conclusion, Dr. Pooler recommended that when milk was diluted with water for young infants, a sufficient amount of good cream should be added to make up for the reduction of fat that was caused thereby, and also laid special stress upon the importance of giving the milk to the child at a temperature of 98° to 100°, instead of 40° to 60°, as was so commonly done.

PROF. LEEDS, of the Stevens Institute, at Hoboken, who, like Dr. Pooler, had been especially invited to

take part in the discussion, said that Dr. Smith, in his paper, having called attention to the intimate relations existing between the thermal curve and summer diarrhœa, and having pointed out that heat alone was not sufficient to produce the disease, he wished to speak for a moment of the complicated atmospheric conditions of crowded cities, and to call attention to one point that seemed to have been greatly overlooked. When a short time since he had been called upon by the engineers engaged in selecting a new water supply for the city of Philadelphia to recommend one that would answer the purpose desired, and was making analyses of all the available sources of supply in Eastern Pennsylvania, he was greatly embarrassed to know what standard of purity he should take with which to compare the various waters. It occurred to him that perhaps rain-water, which came direct from the clouds, would be the best standard of comparison; but he was disappointed in not being able to find any statistics whatever in regard to the variations to which rain-water might be subject under different circumstances and conditions. He therefore made himself an analysis of various specimens of water from rain, fog, and snow, and found to his surprise that all the rain-water which he examined was far more impure than the water taken from the head-waters of the Delaware, Lehigh, Schuylkill, and other streams investigated. This was due, without doubt, to the fact that the rain washed a vast amount of impurities out of the atmosphere as it fell. Dr. Smith had alluded to gaseous and organic matters (the latter probably containing germs), as causes of diarrhœal disease, and he had found a large amount of disagreeable organic matter in rain-water. It seemed to him astonishing that the medical profession had not provided itself with information as regards the purity or impurity of the atmosphere, or medical climatology, as it might be called, and he thought it would be an excellent thing if the Signal Service Bureau of the United States could supplement its meteorological reports with reports of the proportion of oxygen, organic matters, etc., in the atmosphere.

As regards the matter of infant feeding, he was of opinion that we were nearer a practical solution of this important problem than had been deemed possible ten years ago. This had been indicated by Dr. Smith, who had rightly attributed great importance to the results of the conference of German physicians to which he had referred. All authorities were agreed that cow's milk was, on the whole, the best substitute for mother's milk, and the practical point, therefore, was to determine what was the best way of preparing it for the infant. We did not know at the present time precisely what the elements were which made up the so-called casein of cow's milk; it having been ascertained simply that they were coagulable by acids. We did know, however, that there was a difference in the percentage and in the character of the albuminoids and the fats in cow's milk and in human milk, while the milk-sugar was precisely the same in both. As Dr. Smith had mentioned, Pfeiffer had demonstrated that the casein of cow's milk could be rendered similar to that of human milk by peptonizing it. As to the fat in human milk, it was not all appropriated, since twelve per cent. of it, as a rule could be found undigested in the feces of the infant. It was, therefore, supplied in excess by nature. In cow's milk the average quantity of albuminoids was twice that found in human milk. In the preparation of a substitute for the latter, he would suggest that to a pint of good cow's milk one pint of water should be added. If to this mixture two ounces of cream and four hundred grains of milk-sugar were added, the percentage constitution of the fluid would resemble very closely that of mother's milk. If, furthermore, the insoluble casein of the cow's milk were converted into soluble peptones by the action of extractum pancreatis, as recommended by Dr. Smith, it seemed to him that we should have a reliable substitute for the natural food of the infant which would probably give satisfactory results if practically tested. The recent advances made in regard to this subject would, in the near future, he thought, work untold good in the reduction of the now enormous mortality among infants and young children.

DR. WILLIAM H. WELCH then presented specimens of

PRIMARY TUBERCULOSIS OF THE GENITO-URINARY APPARATUS.

The patient from whom they were taken had been in Dr. Gouley's wards at Bellevue Hospital. He was an Italian, twenty-five years of age, and was admitted, in April last, suffering from a purulent discharge from the urethra, swelled testicle, with enlarged epididymis, and elevated temperature. The history was a very obscure and meagre one. Under treatment, the discharge became greatly diminished, and the swelling of the testicle subsided; but the temperature continued high, and the general condition grew worse instead of better —the patient being affected with great weakness and frequent sweats. The diagnosis of acute interstitial nephritis (surgical kidney) was made, and he died June 3d. At the autopsy, primary tuberculosis affecting a large portion of the genito-urinary tract was found. It seemed to begin in the left epididymis, which was enlarged, mostly in the globus major, the distended tubules being filled with cheesy matter. The testicle itself was involved, but, undoubtedly, secondarily. The trouble in the testicles was confined to the left one; and the corresponding vas deferens was also affected. The caseous substance mentioned could be traced up to the situation of the seminal vesicles and prostate gland. In that position, behind the neck of the bladder, a cavity of the size of an orange (a tuberculous abscess) was found, and this had completely destroyed the seminal vesicles, as well as all the central portion of the prostate gland. At one point it opened into the prostatic portion of the urethra; and this opening had undoubtedly existed during life. The lateral lobes of the prostate gland were comparatively unaffected. Miliary tubercles were found throughout the whole length of the urethra, as well as in the bladder. The left ureter was dilated and filled with the same cheesy matter as other portions of the genito-urinary apparatus, and the kidney on that side was also immensely enlarged. It was the seat of extensive tubercular disease, the structure of the organ having been destroyed to a considerable extent, and the parenchyma being filled with cavities containing cheesy matter. The right kidney was free from tubercles, but was enlarged, and, together with the left one, was affected with interstitial nephritis. The glands back of the rectum were filled with

cheesy matter; but no other glands in the body were affected.

The interesting points in regard to this case, Dr. Welch said, were: 1. It was a pure and unmistakable case of primary tuberculosis of the genito-urinary apparatus. 2. There was a mixed infection—the gonorrhœal with the tuberculous. It was not absolutely certain that the patient had had gonorrhœa, but this was highly probable, as the swelling of the testicle was of the kind characteristic of gonorrhœa, and not such as was ordinarily met with in tuberculosis of the organ. In addition, the so-called micrococcus of gonorrhœa had been found to be present. 3. The tubercular disease was confined to the left-side organs. This was certainly merely an accident as regards the kidney, as, since the tubercles were scattered over a considerable portion of the interior surface of the bladder, there was apparently no more reason why the left ureter should have become affected than the right.

In connection with the above specimens, Dr. Welch exhibited several other kidneys which were the seat of primary tuberculosis. One of them was very large, and completely filled with cavities containing cheesy matter. It was taken from a man who was the subject of Pott's disease, and who had also been suffering from psoas abscess, and in connection with the latter there was a tuberculous sinus through the ureter. There was also tuberculosis of the peritoneum, and primarily it had been a case of tuberculous caries. There was a great difference when tubercle gained access by means of the blood-current and when it was transmitted from mucous membrane. In the latter case the destruction of tissue was much more marked, and large cavities were formed, very much as in the lungs. In the specimens of tuberculous kidney exhibited, the mode of infection had been by way of the ureter.

In conclusion, Dr. Welch referred to the existence of the bacillus tuberculosis in the urine of those suffering from tubercles of the kidney, which had first been discovered a little over a year ago. It could by no means always be found, even when searched for with the utmost care, but, if it were found, it constituted a point of the utmost value in diagnosis. In one case he had been successful in finding it, and the diagnosis was afterwards confirmed by autopsy. At post-mortem examinations the bacillus was seldom observed in the caseous matter filling cavities, but he had found it common around the borders of the cavities.

INDIANA STATE MEDICAL SOCIETY.

Annual Meeting, held in Indianapolis, June 10, 11, and 12, 1884.

TUESDAY, JUNE 10TH—FIRST DAY.

THE Society was called to order by THE PRESIDENT, S. E. MUNFORD, M.D., of Princeton, at 10 A. M., in the Plymouth Congregational Church.

DR. E. S. ELDER submitted the *Secretary's Report*, showing a reported membership of 1006.

DR. GEORGE H. KEMPER then presented the *Treasurer's Report*, showing a total balance of $265.41.

PUBLICATION OF THE PROCEEDINGS.

A proposition was received from Dr. F. C. Ferguson, editor of the *Indiana Medical Journal*, offering to publish the proceedings of the Society in the journal under the supervision of the publishing committee and to furnish each member of the Society a copy for one year, provided the Society will pay him the funds that have heretofore been devoted to their publication in book form.

The proposition was referred to a Special Committee, consisting of Drs. Hibberd, Woollen, Boyd, Kemper, and Rowland.

DR. G. W. H. KEMPER, of Muncie, read a paper on

ANGEL-WING DEFORMITY,

based on his own observations as pension examiner. He thought the disease, which is in the nature of paralysis of the shoulder, is caused by overwork and lack of proper diet, and he recommended the use of electricity in treating it. A man so afflicted does not have the free use of his arm, as he can raise it only to a horizontal position.

DR. L. B. WOOLLEN, of the Switzerland County Society, submitted a paper on

ADENIA, OR HODGKIN'S DISEASE,

in which he narrated a case, treated by him years ago, of a man who came of a scrofulous family and first suffered from enlargement of the glands of the neck, which spread to other glands. He found that croton oil, externally applied, was the most satisfactory remedy to relieve the pain, although the disease is incurable.

AFTERNOON SESSION.

DR. GEORGE J. COOK, of Indianapolis, read a paper on *Puritus Ani*.

PUBLICATION OF THE TRANSACTIONS.

The committee appointed to consider the matter of publishing the Transactions of the Indiana Medical Society in the *Indiana Medical Journal*, reported the following resolution for adoption by the Society:

Resolved, As the sense of this Society that the Select Committee should proceed at once to prepare the draft of a contract with the proprietor of the *Indiana Medical Journal* for issuing, for the next ensuing year, the Transactions of this Society in his journal. *Provided*, that the expense shall not exceed sixty cents per capita of the entire membership of this Society.

On motion, the matter was laid over until the next annual meeting of the Society, the auxiliary societies to act upon the proposition in the meantime.

THE COMMITTEE ON ETHICS

reported in the case of Dr. W. W. Vennedges's appeal from the Tippecanoe County Medical Society, that the action of the Society be sustained. In the case of Dr. E. T. Mendenhall, of the Henry County Medical Society, the Committee reported that no action can be taken, as his case had not been presented in legal form. The report was adopted.

DR. JOSEPH EASTMAN, of Indianapolis, read a report of *Four Cases of Ovariotomy*, and DR. J. F. HIBBERD read a paper on *Post-partum Hemorrhage*.

EVENING SESSION.

THE PRESIDENT, DR. S. E. MUNFORD, of Princeton, then delivered his

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his subject being a *A Question in State Medicine*. He said: It has been the custom to charge the faulty edu-

cation of the profession in this country to the medical schools. From the largest in the land, to those of exiguous classes and light equipments, these institutions are not guiltless. They have been too much possessed by our national impatience and hurry, and have practically allowed students to determine the time they should study, and what should be the standard of requirements.

This Society and its auxiliaries are educating centres in the interest of the profession and for the good of the people. One State, and some local societies in this country have established a standard of literary attainments for those who desire to enter the profession, and make it obligatory upon their members to receive no one under their care who shall not possess the certificate of a board of examiners setting forth their fitness to engage in the study of medicine. The perfection of the organization of this body, and its admirable *ésprit du corps* render a measure of this kind easily practicable to it, and I trust we shall have such as a part of our organic law at an early day. Such a restriction of medical pupilage could not fail to exert an immediate salutary influence.

In conclusion he said: In presenting this subject for your consideration, I have endeavored to show the following points: That vicious practices in medical schools began in the remote past, and have been fostered in our day by competition, and by the rush and haste which are characteristic of our energy; that the fundamental cause of incompetency in the medical profession in this country is primal illiteracy; that the intelligent comprehension and use of an art which rests upon science is not possible to the ignorant; that the presence in the profession of those who have not the educational attainments essential to intelligent citizenship is injurious beyond all calculations of the interests of medicine, and is a peril to society; that the remedy is a better scholarship, and its application is largely with the profession. With all there is to regret as to the educational standard of medicine, there is just cause in this day for congratulation. There is a general awakening in favor of reform, and if we read aright the signs of the times the next decade will mark a greater advancement in the interests of our profession than has been wrought in thrice that period of the past. The medical press, the medical schools of the better class, and the general sentiment of the profession seem to favor measures which have for their object the improvement of the educational qualifications of the American doctor. While we invoke and await the aid of the law to regulate the practice of medicine in the interest of the people, let us commend our cause to society by unceasing internal efforts for reform.

WEDNESDAY, JUNE 11TH—SECOND DAY.

DR. A. J. MILLER, of Paris, Ill., read a paper with especial reference to the

WORK OF THE ILLINOIS MEDICAL ASSOCIATION.

He said the tendency was to elevate the standard of medicine in his State, despite the defects and inability to obtain needed legislation. Protection against the mountebanks and charlatans, he thought, was essential to the welfare of the profession.

DR. D. A. MOSS, of the Oxford Retreat, and a member of the Ohio Medical Society, said that the same difficulties existed in Ohio, touching legislation, and it seemed impossible to get a bill through the legislature of any consequence. One reason of this was that so many men prepared bills, and the supporters of one usually antagonized all others.

In the absence of DR. H. V. SWERINGER, of Fort Wayne, his paper on *Post-partum Intrauterine Injections of Carbolic Acid*, was referred to the Committee on Publication.

DR. W. H. MYERS, of Fort Wayne, read a paper on *Puerperal Pyæmia*.

DR. J. R. WEIST, of Richmond, read a paper entitled

MALPRACTICE SUITS; CAN THEIR FREQUENCY BE LESSENED?

He asserted that every action for damage for alleged malpractice was encouraged by some rival of the defendant in the medical profession. Many medical men of property, he said, would not take a case in surgery, knowing that they would run the risk of a suit for damages, provided their operation was unsuccessful. He cited numerous instances of physicians losing thousands of dollars in defending malpractice suits before ignorant juries. In Henry County alone, judgments had been entered against physicians falsely accused of malpractice to the amount of $14,000. He submitted a resolution passed by the Wayne County Medical Society, urging the passage of a bill drawn by State Senator Foulke, providing in the trial of an issue for the appointment by the court of one or more expert witnesses, who shall be required to give testimony and shall be paid the same as ordinary witnesses. Such a measure, Dr. Weist thought, would be of inestimable value to physicians in defending suits brought by irresponsible and dishonest persons simply for gain.

DR. E. F. HODGES, of Indianapolis, read a paper on the same subject, in which he took the lawyers to task for encouraging the bringing of malpractice suits. He regarded them as largely responsible for the trouble caused to reputable physicians.

DR. P. H. JAMESON said that a malpractice suit had never been prosecuted successfully in Marion County. He attributed this to the fact that the physicians had protected one another.

DR. F. J. VAN VORHIS defended the legal profession against the attack. He was of the opinion that the passage of the Foulke bill might accomplish good results. The further consideration of the matter was postponed, pending the report of the Committee on Legislation.

THE FINANCE COMMITTEE

reported that the accounts of the Secretary, Treasurer, and Committee on Publication, had been examined and found to be correct, and recommended that $100 be allowed the Secretary, $50 to the Publication Committee, and $25 to the Treasurer.

DR. G. V. WOOLLEN objected to the report, saying that the Society should know something more about the finances.

The report was referred back to the Committee, with instruction to hear Dr. Woollen's objections.

The Report of the

COMMITTEE ON HOSPITALS FOR INSANE WOMEN,

by DR. MARY F. THOMAS, of Richmond, was received.

The Committee was appointed at the annual meeting of the Society, in May, 1880, to examine the reports of hospitals for insane women, where women physicians have been employed. Dr. Thomas says: "These reports have been encouraging, and the expression of those immediately connected with them so satisfactory, that it merits a continuance of the practice so auspiciously begun."

The COMMITTEE ON NOMINATIONS reported the following list of

OFFICERS FOR THE ENSUING YEAR:

President.—J. H. Woodburn, M.D., of Indianapolis.
Vice-President. — James A. Grigg, M.D., of Fort Wayne.
Secretary.—E. A. Elder, M.D., of Indianapolis.
Assistant Secretary.—W. H. Lopp, M.D., of Columbus.
Treasurer.—G. W. H. Kemper, M.D., of Muncie.

AFTERNOON SESSION.

DR. S. S. BOYD, of Dublin, read a paper on *Medical Legislation.*

DR. GEORGE W. KNOLAND, Chairman of the Committee on the subject, reported *A Bill to Regulate the Practice of Medicine.*

Drs. Weist, Hodges and Van Vorhis were appointed a Committee to further the passage of an Act to govern the courts in the matter of *Expert Testimony.*

MEDICAL LEGISLATION.

DR. J. F. HIBBERD presented the following resolution:

Resolved, That it is the sense of this Society that the time has arrived when the members should exert their influence, singly and collectively, to secure the passage of a State law requiring of all persons seeking to become practitioners of medicine. that they shall be thoroughly educated in the elementary branches of medical science, and such education should be ascertained by a board of medical examiners, no member of which shall have any official connection with any institution of medical education. Adopted.

DR. HOBBS moved that all the papers now before the Society on medical legislation be referred to a select committee, who should be empowered to prepare the necessary points for a bill to be acted upon by the next Legislature. The president named as the Committee, Drs. Wilson Hobbs, Joseph G. Rodgers, and J. H. Woodburn.

DR. J. L. THOMPSON read a paper on *Asthenopia.*

EVENING SESSION.

DR. THEO. L. WAGNER, of Indianapolis, read a paper on

SMALLPOX AND THE PEST-HOUSE.

He said he had come to the conclusion that while we have advanced in the quality of the virus by using the bovine exclusively, we have retrograded in the manner of vaccination. Vaccination should be practised in at least two abrasions in different parts of the body, and be repeated until the virus ceases to take effect. Touching vaccine lymph, our laws, or rather our lack of laws on this subject, puts us all at the mercy of vaccine producers, whose honesty is our only reliance.

DR. J. W. MARSEE, of Indianapolis, gave a demonstration of a method of

TREATMENT OF FRACTURES OF THE LEG.

He erected a tripod about nine feet high on the stage. He then took a colored man, and, after placing him on a cot, he raised him by means of a pulley, using straps, head-rest, etc., to hold the body at any required height. He then showed how this could be accomplished by means of the ordinary appliances to be found about any house, in case a physician should be called to the country. In this demonstration he used an ordinary piece of wood as the bar, a strip of cloth for the head-rest, and a pair of carriage lines for straps. Having raised the body to a sufficient height, he proceeded to show how to put on the bandages, going into all the details, from the proper adjustment of the parallel plasters to the binding of the last cotton bandages. The body was then lowered and raised in different positions to demonstrate the methods of handling the patient.

THURSDAY, JUNE 12TH—THIRD DAY.

Papers were presented by Drs. H. I. Raymond, on *Antiseptic Treatment of Gunshot Wounds;* B. Wallace, of Franklin, on *Two Cases of Foreign Bodies in the Trachea;* T. J. Dills, of Fort Wayne, on *Intraocular Tumors;* and J. S. Arwine, of Columbus, on *Race Poison.*

The Committee on Legislation, by resolution, was instructed to provide in the bill to be presented to the next legislature that no physician shall be appointed upon the Board of Medical Examiners, who is not endorsed by the Indiana State Medical Society.

A SCHOOL OF PHARMACY.

The following was unanimously adopted:

The Trustees of the Purdue University having established a school of pharmacy in connection with the University, and recognizing the great need of educated and skilled pharmacists in order to enable the educated physician to successfully encounter disease, we hereby express our pleasure and approval of the action of the Trustees and pledge them our sympathy and support.

The customary vote of thanks was tendered to the retiring officers, and the Society then adjourned to meet in Indianapolis, on the second Tuesday in May, 1885.

MICHIGAN STATE MEDICAL SOCIETY.

Nineteenth Annual Session, held at Grand Rapids, June 11 and 12, 1884.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, JUNE 10TH—FIRST DAY.

MORNING SESSION.

THE meeting was called to order by THE PRESIDENT, DR. A. F. WHELAN, of Hillsdale. An address of welcome was delivered by the Hon. C. E. Belknap, Mayor.

The roll was then called by Secretary Ranney, and 109 members answered to their names.

The reports of the Secretary and Treasurer were then read. The *balance* in the treasury was $1050, exclusive of about $600 collected at this meeting.

PROF. DONALD MACLEAN, of Detroit, Chairman of

the Committee on Surgery, reported four surgical cases which had come under his care.

A well-digested, carefully written essay by Dr. Samuel P. Duffield, of Dearbornville, was then read on *Expert Testimony and Compensation.*

AFTERNOON SESSION.

DR. C. J. LUNDY, of Detroit, read a paper entitled

THE DRY TREATMENT OF CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

All knew that the disease was attended with danger, and that many had seen examples of caries and necrosis of the temporal bone, mastoid abscess, meningitis, cerebral abscess, or death which occurred as the result of a neglected suppurative otitis media. Therefore any system of aural therapeutics which the better enabled us to control and cure this affection was a great boon. Before beginning the use of powders, all remediable complications must be removed. If aural polypus or granulations be present, they must be removed or destroyed; and so it was also with removable pieces of necrosed bone in the mastoid or elsewhere.

The advantages which the dry treatment of chronic suppurative otitis media seemed to offer were: (1) The constant medication of the parts; (2) the thorough and continuous disinfection of the ear as well as the destruction of microörganisms; (3) the absorption of the discharges and protection from their irritating properties; (4) protection from atmospheric influences. It could not be claimed that powders should be used to the exclusion of remedies in other forms, and they were contraindicated at times. In certain cases they proved a failure, and sometimes did harm instead of good. While no definite plan could be laid down for the management of individual cases, yet some rules could be formulated for our guidance in a general way.

The so-called dry treatment would seem to be contraindicated under the following circumstances:

First. When the discharge is so profuse that the powder becomes supersaturated before it has had time to exert any beneficial influence. *Second.* When granulations or polypi exist, the dry treatment should not be employed until these bodies have been destroyed or removed; although powdered boracic acid would cause absorption or destruction of these in a few cases. *Third.* When the disease is complicated by caries or necrosis of the temporal bone. *Fourth.* When mastoid abscess is present or suspected. *Fifth.* When there is good reason to suspect the presence of meningeal or cerebral complications.

The remedies which might be used in the form of powder were numerous, but the writer had confined himself to the use of a few. He had found boracic acid to meet the indications in a majority of cases. When absolutely free from impurities it was a valuable remedy. It was difficult to get a preparation that had no irritating properties. Many failures to cure were attributed to want of therapeutical value of the medicine, whereas the impurities in the remedy were at fault. He had found Wyeth's boracic acid pure and free from irritating properties.

Boracic acid and resorcin—seven parts of the former and one of the latter—formed a valuable combination. Resorcin was too soluble to be used alone. Bismuth and the perchloride of mercury were valuable, especially when eczema of the auditory canal or dermatitis of the canal existed. Astringents could be combined with boracic acid if desired.

Before using these powders, the ear should be thoroughly cleansed. This was a matter of great importance. By means of a powder-blower, some of the powder should be blown into the deeper portions of the auditory canal, and even into the tympanic cavity, after which the canal should be more or less completely filled with the powder. After a lapse of one, two, or more days, according to circumstances, or when the powder becomes moist, it should be removed, the ear should be again thoroughly cleansed, and the powder reapplied. Cases were reported showing some very remarkable cures from the use of remedies in dry form, especially from boracic acid.

PRESIDENT WHELAN then called Vice-President Tupper to the Chair, and read his

ANNUAL ADDRESS,

on *Developments of Medical History, Science, and Art,* closing with an appropriate tribute to the memory o Drs. James H. Jerome and William Brownell, deceased.

DR. C. GEORGE, of Ann Arbor, read a lengthy paper giving the history of the use of *Large Doses of Turpentine in the Treatment of Diphtheria,* and his personal experience with it.

DR. H. O. WALKER, of Detroit, read a valuable paper on *Exploration of the Male Urethra,* exhibiting instruments to facilitate the same.

PROF. A. B. PALMER, of the University, read a paper on

PROSTATIC HYPERTROPHY AND URINARY OBSTRUCTION; ITS TREATMENT WITHOUT CATHERIZATION,

which, from the simplicity, and, to many, the novelty of the method, attracted particular attention.

After referring to the frequency of prostatic enlargement in advanced life, and the occurrence of what specialists call the "catheter period," which means a period of such obstruction to the passage of the urine in which the bladder is not completely emptied, an irritation of the urinary organs of a somewhat decided character occurs, and which also implies that from that time onward, the catheter must be a constant companion, and one likely to be brought into frequent use, and after further referring to the great unpleasantness and not unfrequent dangers of its introduction, the "catheter fever," and the still more frequent shock, the method of procedure in the management of cases was described as follows:

The urethra is to be filled with urine as in an effort at micturition. The penis is then grasped by the hand of the patient and the urethra is pressed upon so as to interrupt the flow; and then by straining as in the attempt to forcibly empty the bladder, the distention of the urethra is produced. This distending pressure is gentle, steady, diffused, and painless, and may be applied and sustained at will; and in a majority of cases, if daily repeated for a time, and if it is done thoroughly, and especially if commenced at an early period of the obstruction, it will overcome this form of stricture effectually, and without irritation or danger. A case, as a specimen of many others, was given in detail, as illustrating the efficiency of the measure.

The paper concluded with the statement that from sufficient experience, the efficiency and value of the method had been demonstrated, and it was strongly commended to the attention of the profession.

In compliance with a resolution previously made by Dr. Pratt, and adopted by the Society, the President appointed a

COMMITTEE TO NOMINATE OFFICERS

for the ensuing year, except the President. The committee was composed of Drs. Wm. Brodie, H. McColl, S. H. Clizbee, G. K. Johnson, and E. P. Christian.

DR. J. H. CARSTENS, of Detroit, read a paper on *Sterility in Women.*

THURSDAY, JUNE 12TH—SECOND DAY.

MORNING SESSION.

REPORT OF A CASE OF PERINEPHRIC ABSCESS,

by DR. GEO. K. JOHNSON, of Grand Rapids, was next read. This was a history of a man twenty-two years of age, whose illness, at first, was marked by the symptoms of typhoid fever, but they soon partially abated and an indefinite ailment, characterized by weakness, want of appetite, loss of flesh, feeble pulse, cachectic fever, and pain in the left iliac and lumbar region, led him again to seek advice. Pain in the left costo-iliac space had come on, and was increased by pressure; a feeling of weight in left flank and left upper abdomen was complained of, but no pain in genital tract or groin. Urine voided frequently, loaded with pus, but without blood, mucus, or casts. Left half of abdomen distended with a fluctuating tumor which was easily defined. A hypodermic needle passed into the tumor withdrew a drachm of pus and confirmed the diagnosis. The body forces were fast waning, and the danger that the cyst would rupture and pour its contents into the cavity of the abdomen was imminent; it was decided at once to aspirate the tumor. Passing the needle at the external margin of left rectus, two inches below the level of the umbilicus, eighty-four ounces of pus were removed; within a few hours relief came, fever left, and pain vanished. On the second day the temperature of the patient reached 100° F. in the morning, and 104° in the evening. On the fourth day the temperature was 99½° in the morning, and 104½° in the evening, when it reached its climax; the patient having, though restless, suffered no pain or swelling of the parts since aspiration.

Six days after the aspiration, some fulness appeared over the site of the tumor, and a few days later there was found to be considerable reaccumulation of pus, but the discharge by the urinary conduits was so free that no further accumulation took place, and all tumefaction slowly but steadily disappeared. Three months after aspiration the patient seemed entirely well; appetite, strength, flesh, and spirits, were fully restored. The urine was normal, and all traces of the tumor were gone. The author closed his paper with a comprehensive review of the literature of perinephric abscess.

DR. E. P. CHRISTIAN then read a paper on *Placenta Prævia.*

The Committee on Nominations then rendered their report, which recommended the following

OFFICERS FOR THE ENSUING YEAR:

Vice-Presidents.—Drs. J. Perkins, of Owosso; J. M. Cook, of Muskegon; Gordon Chittock, of Jackson; Carl Brumme, of Detroit.

Secretary.—Dr. Geo. E. Ranney, of Lansing.

Treasurer.—Dr. A. R. Smart, of Hudson.

Members of Judicial Council (for three years).—Drs. F. K. Owen, of Ypsilanti; C. V. Tyler, of Bay City; Hugh McColl, of Lapier.

DR. WARD moved the adoption of the report.

DR. H. B. SHANK moved to amend by laying the report on the table.

The amendment was lost, and the original motion was adopted.

The Society then proceeded to ballot for President. The whole number of votes cast was 196, of which Donald Maclean received 126; S. S. French received 63; scattering, 6.

The President said that DR. DONALD MACLEAN, having received a majority of all the votes cast, was elected President.

DR. G. K. JOHNSON said that, as in the minds of some the Society should be reorganized, he offered the following:

Whereas, as it appears that the present organization of the Michigan State Medical Society fails to give general satisfaction,

Resolved, that the Chair appoint a committee of five to take into careful consideration the entire matter and report at the next annual meeting. Carried.

DR. MILLS, of Port Huron, invited the Society to hold its *Next Annual Meeting* at Port Huron.

DR. H. B. SHANK moved to amend by substituting Lansing in place of Port Huron. The amendment was lost, and the original motion was adopted.

DR. CHARLES SHEPARD read a report on *Several Cases in Gynecological Practice.*

AFTERNOON SESSION.

DR. A. W. NICHOLS, of Greenville, read a paper on *Nasal Catarrh.*

DR. EUGENE SMITH, of Detroit, read a paper on

GRANULATED LIDS,

and related a case in which he had used jequirity with good effect. He uses a three per cent. solution, and applies it two or three times a day, for three or four days, and then follows with boracic acid. He thinks this remedy is well adapted to old chronic cases in which there is no purulent secretion.

DR. R. J. KIRKLAND, of Grand Rapids, read a paper on *Chronic Catarrhal Otitis.*

A paper by DR. A. R. SMART, of Hudson, on *Therapeutics of Dysmenorrhœa*, was read by title and referred.

DR. WADE, of Holly, read a paper on *Uterine Displacements.*

DR. DUFFIELD moved that when the Society adjourns, it does so to meet on the Second Wednesday of June, 1885. Carried.

THE PRESIDENT appointed the following committees:

To Report on Reorganization of the Society.—Drs. G. K. Johnson, A. W. Alvord, H. McColl, L. Connor, W. F. Breakey.

Committee on Legislation.—Drs. Foster Pratt, Wm. Parmenter, C. V. Tyler, Augustus Kaiser, A. W. Smart.

Over two hundred physicians were in attendance, up-

wards of eighty per cent. of whom were elected members at this meeting.

The Society transacted considerable miscellaneous business of a personal and local character during the session, and the meeting was the largest gathering of the physicians of Michigan ever held.

MINNESOTA STATE MEDICAL SOCIETY.

Sixteenth Annual Meeting, held at Stillwater, June 19 and 20, 1884.

(Specially reported for THE MEDICAL NEWS.)

THURSDAY, JUNE 19TH—FIRST DAY.

THE Society was called to order by THE PRESIDENT, DR. LINCOLN, of Wabashaw; about one hundred and twenty-five members being in attendance.

A COMMUNICATION FROM THE NEBRASKA STATE MEDICAL SOCIETY

was received, containing the following provisions:

"The Committee on Foreign Correspondence shall consist of one duly accredited representative (a member of this Society) for each State and Territorial Medical Society. They shall receive and review the *Transactions* of the Societies which they represent, and, through their Chairman, the Corresponding Secretary shall present annually a report of the advances in medicine made by said societies. They shall also report such other matters as their societies may wish to communicate to the Nebraska State Medical Society.

"It shall be the duty of the representatives of any foreign society to communicate all advances in matters medical and governmental made by said Society in the year just past, as well as all matters of whatever kind his society may wish to be brought to the notice of the Nebraska State Medical Society."

In accordance with this implied request, DR. BLACKMER, of Albert Lea, was appointed the representative of Nebraska in the Minnesota Medical Society.

THE ADDRESS OF THE PRESIDENT,

DR. LINCOLN, of Wabashaw, was an appeal to physicians to promulgate the doctrines of hygiene and preventive medicine. It discussed the physiological effects of alcohol, and dealt with inebriety as a disease, and with the relations of alcoholism to heredity. The members of the Society were urged to study the problems involved in these subjects, and to record and preserve all facts within their experience which may aid in their solution.

AFTERNOON SESSION.

MISCELLANEOUS BUSINESS.

DR. HUNTER, of Minneapolis, offered a resolution to the effect that the chairmen of committees shall act as a committee whose duty it shall be to examine all papers to be presented at the annual meeting, and to decide which shall be read and discussed; and that the Corresponding Secretary shall furnish each member with a list of such papers at least a month before the meeting. The resolution was unanimously adopted.

DR. LEASURE, of St. Paul, offered a resolution which provided for a committee of three to report at the next meeting such measures as would facilitate and improve discussions and the working methods of the Society.

THE COMMITTEE ON PRACTICAL MEDICINE

made a report, of which the most interesting feature was the description by Dr. Leasure of a case of acute cough with fever, accompanied by expectoration of a quantity of phosphatic pulmonary concretions; the patient recovered.

DR. DUNN, of Shakopee, now in Vienna, was appointed a delegate to the International Medical Congress at Copenhagen.

THE REPORT OF THE COMMITTEE ON MEDICAL EDUCATION

deprecated the multiplication of medical colleges, and urged the appointment of boards to examine all physicians without exception.

To a question as to what good had been accomplished by the

STATE BOARD OF EXAMINERS,

DR. MILLARD replied that he had the addresses of two hundred and twenty persons practising medicine who have left the State since the enactment of the law, and that there are but twelve within its limits who have not yet complied with its requirements. A case is now pending in the Supreme Court to test the constitutionality of the law. Dr. Millard said that the Board will protect the profession and endeavor to raise the standard of professional excellence, and asked for support and countenance.

DR. HUNTER presented the

REPORT OF THE COMMITTEE ON SURGERY,

which related chiefly to visceral surgery, and to the management of wounds. Dr. Staples having advocated the treatment of hip-joint disease by leather splints.

DR. BAUER, of St. Louis, addressed the Society upon the subject of that disease; its pathology and treatment. He denied emphatically its diathetic nature or origin, affirming that its cause in almost every case is traumatism. He urged absolute rest, immobility, and, when indicated, tenotomy, as the only rational treatment; extension and counterextension being wholly useless and uncalled for.

Hernia and herniotomy were discussed, and operations for radical cure described.

DR. AYRES, of Omaha, Delegate from the Nebraska Society, reported a case of *Wound of the Internal Carotid* by broken glass. The accident occurred in the street, where Dr. Ayres tied the common carotid, the patient lying on the sidewalk. Recovery ensued, with some facial paralysis.

The Society was entertained at the Sawyer House in the evening, a banquet being tendered by the Washington County Medical Society.

FRIDAY, JUNE 20TH—SECOND DAY.

MORNING SESSION.

DR. CLARK, of Stillwater, for the

COMMITTEE ON OBSTETRICS,

presented a report. He discussed the use of ergot and of anæsthetics in labor, the aseptic management of the puerperal state, and intrauterine irrigation. An animated discussion followed. Drs. Dunsmoor, Hunter, and French expressed grave doubt as to the safety of

intrauterine injections, and cases were cited illustrative of their danger. Preference was given to mopping out the uterine cavity with cotton covered with boracic acid or iodoform. Dr. Stone defended the use of injections, and advocated the administration of chloroform in labor, especially when organic cardiac disease exists. Dr. Bauer condemned bichloride uterine or vaginal injections, and would use chloroform freely except in anæmic cases. Dr. Lincoln described a case in which, soon after delivery, a chill occurred, followed by a temperature of 106° The patient was in a shanty on a prairie, where not only irrigation, but even efficient nursing, was unattainable. Twenty grains each of quinia and potassium bromide were administered, and in a few hours the temperature fell to 100°; no other treatment was required. Dr. Lincoln remarked that if irrigation had been resorted to in this case, it would have been credited with the recovery.

Various committees presented reports, which were read by title. That of the Gynecological Committee dealt with cleanliness, the calibre of the urethra, trachelorrhaphy, and tubercle of the peritoneum.

DR. OWENS offered a resolution endorsing the State Examining Board, and pledging the support of the Society, which was unanimously adopted.

A request from the Women's Christian Temperance Union, that a committee be appointed to investigate the subject of Alcoholism and Heredity, was placed on file.

AFTERNOON SESSION.

DR. FULTON, of St. Paul, Chairman of the Committee on Ophthalmology, read a paper upon *Functional Affections of the Eye.*

DR. ABBOTT, of Minneapolis, urged the importance of the general practitioner qualifying himself to recognize and treat certain diseases of the eye (*e. g.*, iritis), the diagnosis of which is often made only by a specialist, and too late for successful treatment.

THE ELECTION OF OFFICERS

being in order, resulted as follows:

President.—Dr. J. B. McGaughey, of Winona.

Vice-Presidents.—Drs. F. A. Dunsmoor, of Minneapolis; W. H. Pratt, of Stillwater; and C. A. Wheaton, of St. Paul.

Treasurer.—Dr. S. B. Sheardown, of Stockton.

Recording Secretary.—Dr. C. H. Boardman, of St. Paul.

Corresponding Secretary.—Dr. A. F. Ritchie, of Duluth.

Censors (*for three years*).—Drs. J. C. Rhodes and V. Smith.

After the usual complimentary resolutions, the Society adjourned, to meet in St. Paul on the third Thursday in June, 1885.

NEW HAMPSHIRE MEDICAL SOCIETY.

Ninety-fourth Annual Meeting, held at Concord, June 17 and 18, 1884.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 10TH—FIRST DAY.

The Society was called to order by THE PRESIDENT, DR. JOHN W. PARSONS, of Portsmouth.

After the usual appointment of special committees by the Chair, the Secretary read the report of the meeting of the Council, which was approved by the Society.

THE PRESIDENT, DR. J. W. PARSONS, spoke at some length on

THE IMPORTANCE AND WELFARE OF MEDICAL ASSOCIATIONS, ESPECIALLY THE NEW HAMPSHIRE MEDICAL SOCIETY.

He spoke of the influence of associations in advancing the interests of every avocation, and upon the progress of civilization in general, and although much had been accomplished he looked for still greater achievements in the future. Medical associations have their portion of this work to perform, and although they do not make discoveries, they stimulate the members to greater exertions and turn their minds into new and broader channels of thought and investigation.

He then enjoined upon the members that care should be taken not to receive into their offices or admit to their patronage, young aspirants for the medical profession, who fail to exhibit evidence of a proper preparatory education. The doors should be wide open to the educated, but carefully guarded against the entrance of the ignorant, even at the risk of occasionally excluding a brilliant mind.

DR. C. P. BANCROFT, Superintendent of the New Hampshire Asylum, read a paper entitled

INQUIRIES INTO THE CAUSES OF INSANITY, WITH ESPECIAL REFERENCE TO PREVENTION AND TREATMENT.

In opening his paper he discussed the history of insanity during the last fifty years, and made reference to the superstition regarding it in early times. As an outcome of a scientific study of the subject, it has been proved to be as specific a disease as any other morbid condition. Mental disease is governed by the same laws that apply to diseases in general. There is a close relationship between constitutional diseases like phthisis, epilepsy, chorea, etc., and insanity in the same individual. This diathesis at one time may develop as insanity, and at another time as some other disease. He believed that a close relationship exists between chronic insanity and constitutional disease.

Acute mania, in many instances, results from defective habits of life and over-taxing the mental powers. In the New Hampshire Asylum about seventy-five per cent. are chronic cases, which the reader regarded as resulting from hereditary causes. This class, as a rule, is incurable. Of the acute cases, as many recover under practical treatment as get well from other acute diseases.

The reader did not believe that insanity was necessarily transmitted from parents to children, but that oftentimes other constitutional diseases appeared instead. On the other hand, diseases like scrofula, phthisis, syphilis, etc., may not appear in children as such; but other organic changes in the nerve-centres, producing chorea, epilepsy, insanity, etc. Any cause which changes the cell structure of the brain or nerve-centres may produce the disease. This is illustrated in disturbances of the motor nerves which result in chorea and epilepsy. Similar disturbances occurring in the intellectual portion of the brain result in insanity. These hereditary tendencies were implanted in the very

foundation of the physical structure of the individual, even though they did not appear for many years afterwards; in some instances a generation or two were passed. The latter is often the case in intemperance, phthisis, etc.

So long as children are born whose parents are afflicted with these constitutional diseases, so long will they be found in every community. If physicians would point out intelligently to every community the impending danger of such unions, much would eventually be accomplished in preventing such results as are now witnessed everywhere. When such constitutional tendencies exist, the physician could do much to avert a manifestation of these diseases by advice to the subject relative to methods of living, work, climate, etc.

DR. EDWARD O. OTIS, of Exeter, read a

REPORT ON SURGERY,

in which he discussed the various methods of antiseptic treatment and antiseptics. He especially called attention to the methods of applying the first bandage with reference to drainage. The elastic bandage was next taken up, and statistics given relative to the results of its use. He reported 55 cases of removal of the breast, in 47 of which the axilla was opened and cleared of enlarged glands. The dressing first applied was allowed to remain until perfect, or nearly perfect healing had resulted in 39 of these cases. In 49 cases of knee-joint resection, the primary bandage was not removed in 34 until nearly healed. Other equally remarkable results were given.

The surgical treatment of pleurisy with effusion, and of empyæma, was next considered. Paracentesis was recommended in the form of a permanent opening, with proper antiseptic precautions. Dr. Cabot's method was given, and his trocar exhibited.

DR. E. S. BERRY, of Dover, read a paper entitled,

RESPIRATORY IRRIGATION IN THE TREATMENT OF EMPYÆMA.

The reader endeavored to prove the value of respiratory irrigation over Listerism, showing tbe value of traction in producing expansion of the lung, and to illustrate the worth and convenience of this method of treating empyæma in private practice. He discussed somewhat the history of the treatment of this disease, by tapping the chest prior to 1850, when Dr. Bowditch advocated paracentesis so strongly. He believed that Listerism was a great advancement in the treatment of this disease, and recognized in connection with it the method of traction advocated by Dr. Cabot of Boston. He reported a case treated by respiratory irrigation, in which a rubber tube was made to enter the pleural cavity and bound firmly in place, with the other end terminating under a solution of thymol. The solution was changed whenever it became turbid. By this method the cavity was irrigated by each respiration as the solution passed in and out through the tube. The traction mentioned was produced by the constant weight of the water in the tube. The patient made an excellent recovery.

The advantages of this treatment the reader summed up as follows: *First.* That septic changes were completely prevented by this method. *Second.* The great value of traction in bringing about an expansion of the lung. *Third.* The ease and facility with which fibrin, clots, etc., were washed from the pleural cavity. *Fourth.* Its advantages over Listerism, and the less expense and attention required in managing the case.

DR. M. C. LATHROP, of Dover, read a paper on

MOTHERS' MARKS.

In the supposed cases of mothers' marks he discussed the opinions of many prominent persons who entertained this popular view of the subject, and who believed that the pregnant woman could receive impressions upon her nervous system which, through reflected action, produced malformations or disfigurations in the child. He believed the theory to be a delusion, notwithstanding Carpenter and Dalton had endeavored to sustain it by theories admitting its possibilities. The whole foundation of such a belief rested upon the difficulties of otherwise accounting for certain congenital defects, which the imagination associated with certain events, or objects, because coincident. Physiology, itself, protested against such a view of the subject. The only connection from the first between mother and child was one of nutrition; aside from that they were distinct individuals. That this avenue was sufficient for conveying the mental shocks or impressions of the mother was very absurd. He believed that hereditary defects, alone, were sufficient and rational explanations of the various conditions usually classed as mothers' marks.

DR. I. G. ANTHOINE, of Antrim, read a paper on

AIDS IN OBSTETRICS.

He regarded chloroform as standing first in the list. Its advantages over ether were many. Its effect was rapid; it was not necessary to produce unconsciousness; it caused less excitement, and was in every way preferable. His method of administering it was from a folded napkin placed in the palm of the hand. He would never give it to the extent of complete anæsthesia. The efforts of the patient were of as much avail as if chloroform had not been given. He had given it about one hundred times and seen no bad results to either mother or child. The reader gave an illustration to show that the os was much quicker dilated by its use even in the earlier stages of labor.

Forceps were of great aid when there was danger of laceration of perineum. When the uterine pains cease it is much better to apply the forceps than to give ergot.

DR. C. R. WALKER, of Concord, read a paper on

ANTISEPTIC SURGERY.

The author concluded that for general purposes carbolic acid or the bichloride of mercury solution was the most feasible for ordinary work. Even when unable to obtain any of the specially prepared dressings, he thought that, aided by the pure air of the country, one should not despair of keeping a wound aseptic by means of cotton or any thickly applied clean absorbent material. He thought that accurate coaptation of surfaces, firm compression and rest were the real secrets of much of the success of all dressings, antiseptic or otherwise. Finally, he claimed that we imperilled our results by too frequent dressings, declaring that the laws governing the strict use of antiseptic materials should govern also the change in all simpler dressings.

WEDNESDAY, JUNE 11TH—SECOND DAY.

DR. EZRA MITCHELL, of Lancaster, read a paper on

GYNECOLOGY,

in which he reported twenty-three cases of lacerated perineum and cervix operated upon by Dawson's method. In eight cases the operation was performed on both the cervix and perineum at the same time, and took, upon the average, about thirty minutes. The advantages claimed for this method are: 1. Much better results; 2. Simplicity of operation, by which any physician of ordinary ability can operate. The cases were reported in detail, and showed remarkably good results.

DR. MARY DANFORTH, of Manchester, presented a

REPORT UPON OBSTETRICS.

This paper was a long and exhaustive one on obstetrical practice in New Hampshire, and embraced a large amount of valuable statistical matter obtained by correspondence with nearly all of the physicians in the State.

The following were then elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. John Wheeler, of Pittsfield.

Vice-President.—Dr. Geo. A. Crosby, of Manchester.

Secretary.—Dr. G. P. Conn, of Concord.

Treasurer.—Dr. D. S. Adams, of Manchester.

Executive Committee.—Drs. C. R. Walker, of Concord; George D. Towne, of Manchester; J. R. Kimball, of Suncook.

COLORADO STATE MEDICAL SOCIETY.

Thirteenth Annual Session, held at Denver, June 17, 18, and 19, 1884.

THE fourteenth annual session of the Colorado State Medical Society was called to order by THE PRESIDENT, DR. WM. R. WHITEHEAD, of Denver.

DR. G. J. BULL, late of Colorado Springs, presented through Dr. E. C. Rivers, a paper on *Ophthalmology and Otology*, and Dr. E. A. Lee, of Mt. Collins, a paper on *Compound Dislocation of the Ankle-joint.*

The treasurer reported a balance of $77.

DR. H. A. LEMEN, of Denver, read a paper on *Abdominal Section*, in which he presented the record of forty-eight cases operated upon in Colorado.

THE PRESIDENT, DR. W. R. WHITEHEAD, then delivered the annual address, and scientific papers were presented by Drs. Horn, Cox, Lemen, and Solly.

The following were then elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. Hause, of Greeley.

Vice-Presidents.—Drs. Solly, of Colorado Springs; Rogers, of Denver; and Earhart, of Boulder.

Recording Secretary.—Dr. S. A. Fisk.

The Society will meet again next year at Denver.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Special Meeting, June 6, 1884.

THE VICE-PRESIDENT, DR. B. F. BAER, IN THE CHAIR.

DR. WILLIAM GOODELL exhibited specimens of

PYOSALPINX AND HYDROSALPINX.

In the former case, the lady was unmarried and had suffered from pelvic pains and menorrhagia for several years. Last autumn a tumor was discovered by her physician, who deemed it a fibroid of the womb. Early this year her sufferings became so great that she took to her bed. Very large doses of morphia were needed, and septic symptoms now set in. After she had been in bed for several weeks Dr. Goodell was called in to see her. The tenderness of the abdomen was now so great that the examination was made under ether. Even then the diagnosis was obscure, because she flinched and her recti muscles became tense whenever the abdominal wall was pressed upon. A cyst was discovered, but of what nature it was impossible to determine. Dr. Goodell operated on her at his private hospital. The womb was studded with small fibroid nodules; posteriorly, it had an outgrowth as large as a small egg. Closely adherent to the womb, to the pelvic fascia, and to the intestines was a thick-walled cyst of the left ovary as large as the largest orange. The corresponding oviduct was very thick and enlarged to the size of a small sausage. It and the cyst were filled with a very dark purulent fluid, although there was no communication between them. The lower end of the cyst had become necrosed, and was so thinned out that it would very soon have given way at that point. On account of the presence of filroids in the womb, the right ovary was also removed. Attached to the fimbriæ of the oviduct were three very beautiful pedúnculated vesicles; while two others, not yet pedunculated, lay in the stroma of the broad ligament. The recovery of the lady was uninterrupted.

In the case of hydrosalpinx, the patient was a widow, aged thirty-seven, who had been sent to him in order to have her ovaries removed. Severe pains began a week before the menstrual flux, culminating during the flow and continuing one week longer, then fading gradually away. For three weeks out of every month she was confined more or less to the recumbent posture, and wholly so during the menstrual week. A tear of the cervix and one of the perineum had been well required by two surgeons, but with no improvement. Dr. Goodell wished her at first to try the rest treatment with message, electricity, and graded muscular movements, for he had repeatedly cured cases of this kind through such a mode of treatment. She was, however, too poor to take this treatment privately and, therefore, was urgent to have her ovaries removed. The operation was performed fifteen days ago, and she is now doing very well indeed. The ovaries, as exhibited, were much enlarged and showed marked follicular degeneration. From this condition Dr. Goodell thought that nothing short of the operation would have cured her. Attached to one oviduct was a delicate vesicle with a thread-like stem of over an inch in length. In view of the frequency with which they are found, he could not but think these vesicles played some *rôle* in the economy, and that they had sometimes a pathological bearing. He had on several occasions met with small post-uterine cysts which burst either spontaneously or under the pressure of an ordinary vaginal examination. Taking anvantage of this fact he had quite recently burst one designedly by bimanual pressure. Such delicate cysts, and also those very movable ones which remained small without increase in bulk, he was disposed to attribute to these vesicles. After bursting, these cysts sometimes refill; one he had known to burst and

refill at least six times before it disappeared. Now small ovarian cysts had, in his experience, thick walls, and, further, they rarely remain small any length of time. Dermoid cysts, on the other hand, often remain stationary for years, but they were generally not very movable, and they also had thick walls.

DR. ALBERT H. SMITH had found these cases of pyosalpinx very difficult of diagnosis. He had been present at an operation by Knowsley Thornton upon a case in which the lesion was double and both tubes and ovaries were removed. Rupture had occurred previously and had been followed by peritonitis. The patient recovered.

DR. B. F. BAER inquired if Dr. Goodell would recommend rupture of cysts arising from the hydatids of Morgagni.

DR. GOODELL would consider it good surgery for the purpose of preventing the further growth of the cyst. He had always found the fluid in small cysts to be unirritating.

DR. ALBERT H. SMITH remarked that Schroeder holds that the fluid of an ovarian cyst is not noxious to the peritoneum. He makes no effort to protect the peritoneal cavity from its ingress during an operation, and yet his statistics show a remarkable success.

In response to a query, DR. GOODELL stated that the dressing of the wound after the operation was glycerole of carbolic acid with the Lister gauze.

NEWS ITEMS.

YELLOW FEVER; PRECAUTIONARY MEASURES.—A number of petitions having been received by the Surgeon-General, M.-H. S., from Tampa, Fla., requesting the establishment of a quarantine station at Tampa Bay, the Mayor was notified on June 23d that "An inspector will be stationed at such point as you may direct, to tide over the emergency through the summer. Regular quarantine buildings cannot be built out of present appropriations."

Similar petitions were also received from El Paso, Texas, and the Collector of Customs at that port was authorized, on June 28th, to appoint a Sanitary Inspector at Nogales, and another at Sasabe, to stop emigrants, baggage, etc., coming from the west coast of Mexico until safe from infection. There is great apprehension felt all along the western border, as Mexico fails to keep up either a quarantine system or look after the sanitary condition of her seaboard towns.

YELLOW FEVER IN MEXICO AND HAVANA.—A recent letter to the State Department, from the U. S. Consul at Guaymas, Mexico, states that three fatal cases of yellow fever had occurred at that place, but that the disease had not yet appeared at Mazattan or San Blas.

Twenty deaths from yellow fever occurred at Havana, Cuba, during the week ending June 28th. The disease is slightly on the increase.

PROGRESS OF THE CHOLERA.—The U. S. Consul at Marseilles has been directed daily to notify this Government, by telegraph, as to the progress of the cholera in France. He reports that the disease has become epidemic at Toulon, and that three cases had occurred at Marseilles, where the population are fast becoming panic-stricken. Precautionary measures are being taken, hospitals established, and preparations made to care for the sick at both places. The latest reports pronounce the disease as true Asiatic cholera. Sanitary Inspectors are to be appointed at the U. S. Consulates in Marseilles, Havre, Paris, Hamburg, Liverpool, and London, for the purpose of giving immediate information relative to the sanitary condition of the places named, and to notify the Department of the departure of vessels, persons, and baggage for the United States.

THE INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, VOL. V.—Dr. Billings has just transmitted to the Surgeon-General of the Army the last corrected proof of Volume V. of the Index Catalogue of the Library of the Surgeon-General's Office, and it will be put to press in a few days. This volume, which begins with "Flaccus" and ends with the subject of "Heart," numbers 1055 pages, and includes 15,555 author titles, representing 5755 volumes, and 12,596 pamphlets. It also includes 8069 subject titles of separate books and pamphlets and 34,127 titles of articles in periodicals, making a total in the five volumes of 50,986 author titles, which represent 30,722 volumes of books and 40,075 pamphlets and 49,552 subject titles of separate books and pamphlets, 183,864 articles in medical journals and transactions of societies, together with 4335 portraits of medical men.

By provision of law, copies of Volume V. can be had for $2 each by any one, on application to the Government Printer, provided the application, accompanied with the money, is sent in before the volume goes to press. As no extra copies are authorized by law, and the number printed is limited to those actually needed by the Surgeon-General for distribution to public libraries and for exchange, medical men desiring to avail themselves of this publication should send their orders to the Public Printer before July 15.

DR. BILLINGS sailed for Liverpool on the Gallia on Wednesday last, *en route* to Copenhagen, to attend the International Medical Congress, as the representative of the Army Medical Department.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 24 TO JUNE 30, 1884.

CLEMENTS, BENNETT A., *Major and Surgeon.*—Ordered to relieve Major Jos. P. Wright, Surgeon, of his duties as Attending Surgeon at the Leavenworth Military Prison, Fort Leavenworth, Kansas. Major Wright, on being relieved, ordered to report to the Commanding General, Department of Texas, for assignment to duty.—*Par 7, S. O. 144, A. G. O.*, June 21, 1884.

HARTSUFF, ALBERT, *Major and Surgeon.*—(Fort Riley, Kansas.) Granted leave of absence for one month with permission to apply for one month's extension. To take effect when his service can be spared.—*Par. 6, S. O. 130, Headquarters Department of Missouri*, June 25, 1884.

DICKSON, JNO. M., *Captain and Assistant Surgeon.*—Assigned to duty as Post Surgeon, Alcatraz Island, California.—*Par. 3, S. O. 71, Headquarters Department of California*, June 19, 1884.

GIRARD, A. C., *Captain and Assistant Surgeon.*—Granted leave of absence for six months with permission to go beyond sea.—*Par. 11, S. O. 148, A. G. O.*, June 26, 1884.